

The table below illustrates the salient features of the census of 1901:—

NAME OF STATE.	Area in square miles.	NUMBER OF		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.	Percentage of persons able to read and write on the total population of each State.
		Towns.	Villages.					
Athgarh ...	164 ...	...	192	43,784	260	+ 18.6	2,100	4.8
Athmalik ...	730 ...	...	460	40,763	56	+ 38.0	558	1.4
Bāmra ...	1,088 ...	1	931	123,378	63	+ 18.2	5,011	4.06
Barambā ...	134 ...	...	181	34,260	285	+ 17.6	1,075	4.4
Baud ...	1,364 ...	...	1,070	88,230	70	+ 1.4	1,474	1.7
Bonai ...	1,296 ...	...	217	39,277	30	+ 10.1	873	0.97
Daspañā ...	568 ...	...	485	51,987	92	+ 14.0	816	1.7
Dhenkāñā ...	1,463 ...	2	968	279,062	187	+ 14.8	9,392	3.4
Gānpur ...	2,492 ...	...	906	234,896	96	+ 24.8	3,158	1.3
Hindol ...	312 ...	...	234	47,186	151	+ 24.2	1,668	3.5
Kāñāhandi ...	3,745 ...	...	2,198	350,529	94	+ 7.4	6,129	1.7
Keonjhar ...	3,096 ...	...	1,884	285,758	92	+ 15.2	7,344	2.6
Khandparā ...	244 ...	...	325	60,450	284	+ 9.7	1,891	2.0
Mayūrbhanj ...	4,243 ...	1	3,593	610,383	144	+ 14.7	13,115	3.1
Narsinghpur ...	199 ...	...	198	30,613	199	+ 17.0	3,309	8.4
Nayāgarh ...	568 ...	...	776	140,779	239	+ 19.4	12,013	8.5
Nūlgiri ...	278 ...	...	460	66,460	239	+ 18.3	3,660	5.5
Pāñ Laharā ...	422 ...	...	265	22,351	49	+ 13.5	518	3.3
Patnā ...	2,399 ...	...	1,850	277,748	116	+ 16.4	5,142	1.9
Rairākhōl ...	833 ...	...	319	20,884	32	+ 32.2	251	1.05
Rānpur ...	203 ...	...	261	46,075	227	+ 14.9	3,101	6.7
Sonpur ...	906 ...	1	839	169,877	185	+ 13.0	1,758	1.63
Tācher ...	399 ...	...	295	60,432	151	+ 14.7	1,275	2.1
Tigirā ...	46 ...	...	102	22,625	492	+ 10.1	1,105	4.9
TOTAL ...	28,046	5	19,026	3,173,395	113	+ 9.5	50,430	2.7

The population of the States is almost wholly agricultural. Out of a total of 3,173,395 (1901), no less than 2,216,498 or over two-thirds subsist on agriculture, viz.:—

Rent-receivers (including dependents)	..	77,848
Rent-payers	...	1,792,354
Agricultural labourers	...	346,296
Total	...	2,216,498

Population engaged in, and dependent upon, agriculture.

Of the remaining one-third, a very appreciable proportion, consisting of potters, barbers, washermen, blacksmiths and other village servants, who are usually paid in kind by their rural employers, also makes its living from the land.

The average density of the population in 1901 was 113 persons to the square mile, the pressure of the population on the soil having nearly doubled since 1872, when there were only 58 persons to the square mile. The density per square mile is as high as 492 in Tigirā, 285 in Barambā, 284 in Khandparā, 260 in Athgarh, 239 both in Nayāgarh and Nūlgiri and 227 in Rānpur. The high density in Tigirā is due to the fact that the soil is very fertile, there is easy and cheap means of transport for surplus produce to Cuttaek, the climate is healthy and rents are

GENERAL CHARACTERISTICS. Density.

exceptionally low. In Khandparā there is the populous trading centre of Kantilo and the soil is fertile and communication with Outtaok is easy and cheap. In Nayāgarh, Nilgiri and Ranpur there are large tracts of good lands, and these three States have ready communication with the railway line, and in consequence all these States are important exporting tracts. The density per square mile is as low as 30 in Bonai, 32 in Rairākhhol, 44 in Pāl Laharā and 56 in Athmallik: the sparse population in these States is due to their isolated position and the vast hill ranges which occupy a large proportion of their areas.

Towns and villages.

There are 5 towns in the States, namely, Sonpur (8,867), Bhuban (6,788), Deogarh (5,702), Bāripadā (5,613) and Dhenkāl (5,609) with a population exceeding 5,000 each: besides these towns the population of Keonjhar, the headquarters of the Keonjhar State, amounts to 4,532 and that of Kantilo in the Khandparā State, 4,719: the population of Bhawanipatnā, the headquarters of the Kalahandi State, is 4,400 and that of Ranpur, the headquarters of the Ranpur State, 4,172: Bolāngir, the headquarters of the Patnā State, has a population of 3,706 and Binkā, in the Sonpur State, 3,843. Khandparā, the headquarters of the State of that name, has a population of 3,944 and Talcher, the headquarters of the State of that name, 3,930. The total population of the 5 towns noted above is 32,599 or 1.03 per cent. of the total population of the States: the total population of the 5 towns and that of the eight large villages noted amounts to 65,845 or 2.7 per cent. of the total population of the States. The remainder of the population is clustered together in 19,018 villages. The people have developed no tendency to collect into cities: they appear to have an inherent aversion to town life. On the average there is one village per square mile and-a-half and the average population of each village is 165.

RACES.

The majority of the population of the States is Oriyā. There is a small sprinkling of Hindustānis who have settled down as traders or their agents: the majority of these are found in Gāngpur. There are a few Bengalis, but they only form 2.09 per cent. of the population. The States still form the refuge of large numbers of aboriginal and semi-aboriginal races, such as the Bhuiyās (91,561), Binjhāls (12,834), Bhumijes (68,118), Gonds (149,119), Hos (108,872), Juāngs (11,159), Khariās (38,478), Khonds (223,424), Korās (4,008), Oraons (51,185), Santāls (194,911), Savars (39,849) and Sudhas (27,324). In the five Sambalpur States there is a small number of Telugus, mostly in the Kalahandi State, whither they have immigrated for trade from the districts of Madras. Some of the aboriginal tribes are

impulsive and excitable, and there have been several instances of *melis* or risings, the most notable of which are the Bhuiyā rebellions of 1862 and 1892 in Keonjhar, and the Khond rebellions in Nayāgarh in 1894 and in Kalāhandi in 1878 and 1881-82. The news of an intended rising is circulated by means of a consecrated knot or *ganthi*, which is quickly passed on from village to village.

The people are, on the whole, truthful, peaceable and law-abiding, the only exception being the Pāna, Doms and Gandās, who being for the most part landless and indolent, live from hand to mouth and furnish the larger proportion of the jail population. A not uncommon form of murder is that committed from dread of sorcerers: the belief in witchcraft is strong, especially amongst the Mundās in the Gāngpur and Bonai States, where murder of some unfortunate old woman, who is believed by the parents to have cast an evil eye on their child, is not an unknown occurrence. It is a common custom where affairs go persistently badly with a family or a village to call in a wizard or sorcerer, known as *guniā* or *rāudiyā*, usually one of the village priests, as an exorcist or to indicate the source of trouble in a family or village where affairs are not prospering, or to point out the person who has cast an evil spell: the wizard arrives and stays sometimes in the family or village and finally indicates the source of the trouble: this has been known to result in the person indicated as the source of the trouble taking the life of the head of the family or the headman of the village who called in the sorcerer and sometimes also his own life.

The language spoken throughout the States is Oriyā and is the mother tongue of 78·2 per cent. of the population. Mundāri dialects are spoken by 12·00 per cent., including Santālī (nearly 6·08 per cent.), Ho (3·25 per cent.), Bhumij (1·69 per cent.), and Juāng (0·34 per cent.); Khond 2·20, per cent., and Khariā 0·71 per cent. Mundāri and Ho are spoken chiefly in the country bordering on the Singhbhūm district, i.e., in the Nāgrā zamindāri of the State of Gāngpur and in the States of Bonai and Keonjhar. The Mundās and Hos, however, understand Oriyā and Hindi and in their dealings with the State officials generally prefer to speak in Hindi. The Santāls are mostly found in Mayūrbhanj, where they number 185,149. The great majority of the Khonds speak Oriyā and have forgotten to a very large degree their own tongue; these are the Khonds who have adopted Hindu customs, taken to regular cultivation in the more open country and become semi-Hinduised. The Khond language is practically only universal in the hill

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GUAGH.

tracts of the Kāṣhāṇḍī State and is spoken by about 45,000 Khonds or 20·1 per cent. of the total Khond population: the hill Khonds, however, all understand and can speak Oriyā and this is the language employed by them in their dealings with the

Literature. State officials. Literature there is none.

RELIGION. The vast majority of the population are Hindus who number 2,774,929 or 86·9 per cent. of the total population. Musalmāns number only 11,553 or 0·36 per cent. of the total population. Animists number 383,171 or 12·07 per cent. of the total population and Christians number 2,962 or 0·09 per cent. A few Buddhists are still found in the Barāmbā State and are apparently a survival of the days when Buddhism reigned in Orissa. Traces of Buddhism are also met with in the State of Baud, and at the village of Baud there are some very ancient temples apparently of Buddhist origin. The total number of Buddhists amounted in 1901 to 717. Though the Hindus apparently so largely predominate, it must be remembered that a very large number are really only semi-Hinduised aborigines: for example large numbers of the Khonds and Bhuiyās have adopted Hindu customs and worship Hindu gods, claiming to be orthodox Hindus, whilst at the same time they quietly worship their own tribal gods and sylvan deities. The Domś, Dumāls, Gandās, Ghāsiās and Pāns are scarcely genuine Hindus and the higher castes of Hindus in the States do not classify them as Hindus, despite their pretensions to be so. The table below illustrates the religious divisions of the people among the individual States:—

Serial No.	STATE.	RELIGION.				
		Hindus.	Animists.	Musalmāns	Christians.	Others.
1	Athgarh	43,141	...	261	392	...
2	Athmalik	40,647	22	81	...	3
3	Bāmra	120,628	2,025	547	14	...
4	Barāmbā	37,441	...	116	...	703
5	Baud	87,988	83	176	3	...
6	Bonai	26,371	11,745	69	92	...
7	Daspalla	81,903	...	81	3	...
8	Dhenkāna	265,750	7,132	749	18	13
9	Gāngpur	146,549	83,943	1,640	1,738	...
10	Hindol	46,184	...	196	...	...
11	Kāṣhāṇḍī	279,656	70,386	504	2	11
12	Keonjhar	246,583	38,567	690	3	4
13	Khandpara	69,429	...	21	...	...
14	Mayurbhanj	507,738	98,485	3,785	268	7
15	Narasinghpur	39,436	...	155	3	...
16	Nayāgarh	133,926	6,190	586	...	...
17	Nilgiri	58,996	7,302	101	161	...
18	Pāl Laharā	20,776	1,540	41	...	...
19	Patol	229,025	47,967	512	149	33
20	Rairākhol	24,364	1,435	92	...	7
21	Ranpur	46,722	...	313	...	...
22	Sonpur	108,981	383	509	4	...
23	Talcher	66,353	...	179	...	...
24	Tigiria	12,186	...	441	...	...
Total ...		2,774,930	383,171	11,553	2,962	700

Amongst the large body of semi-Hinduised races found in the States the worship of the Hindu gods proceeds side by side with that of the original gods of these races and the blending of Hinduism and Animism is clearly observable. In such villages there is almost invariably a village priest, in addition to the Hindu priest; this village priest is a member of an indigenous or aboriginal race and is known by various terms such as *deori*, *kālu*, *jhāṅkar*, etc.: his duties are to appease the powers of evil and the sylvan deities of the tribe with sacrifices of goats and cocks and to guard the village boundaries. No expedition to the forest to hunt and drive for game is undertaken until the village priest has worshipped the village deities, which are represented by a log of wood or a stone smeared with vermilion and usually located in a dense grove or thicket. On the appearance of small-pox the village priest appeases the village deities; the earthen pots and pans of families who have been attacked by the disease are placed on the village boundary on the path leading to the next village and stacked there in broken heaps; the belief being that thus the evil spirit of the disease is driven out; these heaps of broken pots serve to warn travellers that there is small-pox in the village. Similarly it is not uncommon to find cairns of stones along the side of a road or path erected at places where the boundary of a village ends; the idea is that the traveller by placing the stone on the heap obtains absolution for any error or any omission he may have unwittingly committed within the boundaries of the village he has just left. Various are the customs observed. Amongst these may be noticed the custom observed in the Bāmra State by the growers of the tusser cocoon during the period of cultivation. They are on no account permitted to tell the truth: they may not eat during daylight nor may they set their eyes upon their wives: they also seek to propitiate heaven by putting in circulation injunctions to piety written on palm leaves. The circulation of these tracts is induced by the threat which they always wind up with that the village which fails to pass it on will be guilty of killing 10 Brāhmins and 50 cows.

The census of 1901 returned 2,962 Christians in the States. Christians. The settlements are scattered throughout the States, the principal centres are in the States of Athgarh, Gāngpur, Mayūrbhanj, Nīlgiri and Patnā and accounts of these missions will be found in the separate articles on those States.

There are 30 castes and tribes in the States with a numerical strength exceeding 25,000; the total number of these castes and tribes amounts to 2,629,227 or 82·9 per cent. of the total population. The most prominent of these castes and tribes are Chasās

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(240,439), Santāls (194,911), Pāns, Doms and Gandās (183,146, 73,920 and 85,241 respectively or 342,307 in all), Gauras (304,230), Hos (108,872), Khandaits (88,313), Brāhmans (102,976), Khonds (223,424), Bhumijes (68,118), Bāthudis (43,726), Bhuiyās (91,581), Kurmis (57,473), Telis (78,733), Sahars (40,719), Gonds (149,119), Kewats (63,335), Kumbhars (44,518), Oraons (51,185) and Savars (39,849). The Hindus number 2,774,929 persons or 86·9 per cent. of the total population and Animists 383,171 or 12·07 per cent. The so-called Hindus include a large number of aboriginal and semi-aboriginal tribes. These are mostly met with in the mountainous jungle tracts of Baud, Bonai, Kalāhandi, Keonjhar, Mayūrbhanj and Pāl Laharā. The majority are of Dravidian stock and include the Bhuiyās, Bhumijes, Hos, Khonds, Pāns and Gandās, Santāls and Savars. The Bāthudis and Sahars are of uncertain origin. The Ohasās, Gauras, Khandaits and Kurmis are apparently derived from various elements and seem to be mainly non-Aryan. As regards these castes or tribes, an account of the Khandaits, Brāhmans, Gauras, Pāns, and Telis will be found in the *Gazetteer of the Balasore district* and the account there given applies equally to these castes in the States. The Bhuiyās and Khonds reside in more States than one and in addition to the account given of them in the articles on the Bonai and Kalāhandi States they are deserving of special mention from the position and influence they occupy and the large tract of country over which they spread.

Bānka. A small caste found principally in the Kalāhandi State and in 1901 numbering 4,261. The caste was formed from military service like the Khandaits, Paiks and Marāthās and some families bear the names of different castes, as Brāhman Bānka, Kumbhar Bānka, and so on. They were formerly notorious free-booters but have now settled down to cultivation. Each man, however, still carries a sword or knife on his person and in Kalāhandi they are permitted to do this without taking out a license.

Bhuiyās.* The Bhuiyās rank fourth amongst the wild tribes of the States and numbered in the 24 States 91,581 according to the census of 1901. The members of this tribe are scattered over a large tract of country and are found in the following States :—Mayūrbhanj (31,753), Gangpur (23,595), Keonjhar (20,465), Bonai (6,428), Bāmra (6,067), Pāl Laharā (1,869), Ranpur (420), Baud (282), Kalāhandi (256), Nilgiri (201), Dhenkāni (119), with a few

* This account of the Bhuiyās is taken from Colonel Dalton's *Ethnology of Bengal* and from the article on the Bhuiyās by Mr. D. A. Macmillan, Superintendent, Keonjhar State, and published in the *Calcutta Review*, Number CCV, July 1896.

families in the States of Talcher, Khandpara, Rairakhol, Sonpur, Patnā, Athmallik and Nayāgarh. The home of the Bhuiyās is in the wild highlands of the inaccessible hill ranges of Bonai, Pāl Laharā and Keonjhar: this wild region the Bhuiyās have from time immemorial made their abode. The south-west border of Singhbhūm forms the northern boundary of this tract, the States of Pāl Laharā, Talcher and Dhenkānāl the southern boundary, the States of Bonai and Bāmra the western boundary and the mountain area of Keonjhar the eastern boundary, the total area being about 1,600 square miles; of this area 250 square miles in the Keonjhar State represents the original seat of the Bhuiyās, but the pressure of population has caused the tribe to spread out its branches over a far wider tract. Keonjhar, however, has always been the stronghold of the Bhuiyās, and in this State they are undoubtedly the dominant race. They claim to be the children of the soil (*bhui*, earth) and to possess full proprietary rights over the soil in the same manner as other aboriginal tribes always term themselves zamindārs. Though the Hindu population in Keonjhar far outnumbered that of the Bhuiyās, yet the claim of the hill (Pahāriā or Pauri) Bhuiyās to be the dominant race is admitted without question even by the Brāhmins and Rājputs. In Keonjhar they claim the indefeasible right to install the Chief on his *gadi* and in Bonai this right is similarly claimed by the Sāonts, a thoroughly Hinduized portion of the clan. There are two broad distinctions between the members of the clan, viz., the Bhuiyās of the hills and the Bhuiyās of the plains: the latter form the feudal militia of the State and hold their lands on service tenure and are supposed to be prepared to take up arms for their Chief whenever required, though they are equally prepared to turn their arms against an unpopular Chief. The true hill (Pahāriā or Pauri) Bhuiyās are not however bound to fight for their Chief, though they are perfectly prepared to take up arms against him: the duty of the hill Bhuiyās is to attend the Chief on his journeys and act as transport. In Keonjhar the hill Bhuiyās wield an extraordinary power and are capable at any moment of setting the country in a blaze of insurrection and revolt; the news that the hill Bhuiyās are up in arms spreading consternation throughout the country: on such an occasion the country is controlled by an oligarchy of the 60 chiefs of the hill Bhuiyās. Such outbreaks have not been uncommon and an account of them will be found in the article on the Keonjhar State.

The Bhuiyās have divided themselves into different septs, Tribes with distinct customs varying in accordance with the degree divisions.

in which they have come in contact with their Hindu neighbours. There are, however, four principal clans : the Mal or Desh Bhuiyās (i.e., Bhuiyās of the country) who claim to be the superior clan and have preserved all the characteristics of a wild tribe : the Rāj-kuli Bhuiyās who are alleged to be the descendants of the Rāj family from a Bhuiyā concubine : the term *kuli*, i.e., family, signifying royal birth or family : the next two clans are the Rāntālī and Pabana-ansha, who are smaller in number than the first two clans, having taken to regular cultivation and adopted many Hindu customs and are generally more enlightened and advanced than their wilder brethren of the hills. Amongst the Desh Bhuiyās the superior tribe is the true hill Bhuiyā (Pahāriā or Pauri) and their emblem is the *bāngi* (pole on which they carry goods); the emblem of the other clans is the *kānda*. The Desh Bhuiyās inhabit all the mountain tracts and the Rāj-kuli, Rāntālī and Pabana-ansha Bhuiyās are found on the slopes and foot of the hills. The Pahāriā Bhuiyās claim to have nurtured and established on the *garh* of the Keonjhar State the young boy, who was stolen from the Mayūrbhanj family, when Keonjhar was separated from Mayūrbhanj and made into a separate State.

According to tradition it was the Bhuiyās who effected the separation of the two States. The perils and hardships of the journey from the remote hill fastnesses of their home to pay their homage and tribute to the ruling Chief of Mayūrbhanj led the Bhuiyās to the determination to install a Chief of their own. In accordance with this plan they stole one of the young sons of the Chief of the Mayūrbhanj State, being probably assisted in this design by intrigues within the Chief's family. They were successful in their attempt, and bringing the young boy to their mountain fastnesses, reared him with the greatest tenderness and care : Goālās (milkmen) and other necessary castes were imported into the hills to administer to him, his meals were specially prepared and no Bhuiyā was allowed to touch his cooked-food, lest it should thereby be defiled, and as a further precaution, the *chatti* or earthen vessel, in which the food was prepared, was broken daily by a leading Bhuiyā with an arrow. This custom of breaking the earthen-pot in which food has been prepared survives to this day amongst the Bhuiyās. In their selection of a site for the residence (*garh*) of their Chief the Bhuiyās were guided by the sight of a dog vanquished by a hare in fight. Similar traditions concerning the selection of the site of a *garh* are common in the States of Orissa. The site so selected for the *garh* was at the foot of the range of hills

forming the boundary of the Bhuiyā *pīrs* (tracts): it had the advantage of keeping the Chief readily accessible to themselves and placed him in their power, if occasion arose, and facilitated ready escape to the hills from attack by the Marāthās or other foes. The Bhuiyās provided the young Chief with concubines from their own clan and from these unions are said to have sprung the Rājkuḷi Bhuiyās already mentioned. The site then chosen by the Bhuiyās as the *garh* for their Chief has remained unchanged ever since and it is here that the Bhuiyās install each successive Chief, claiming that until the Chief has been actually invested by them, the installation is not complete. The installation of a Chief is the occasion for a mustering of the Bhuiyā clans in their strength, headed by the hereditary master of the ceremonies. The Bhuiyās march into the courtyard of the residence of the Chief to the crash of drums and wild fantastic airs, their leader carrying a pumpkin, as a token of submission or allegiance. After the company is seated the Chief enters the apartment prepared for the ceremony and distributing *pān*, confections, spices and garlands to the company, retires. Then to the clash of the musical instruments of the wild Bhuiyās, the Chief re-enters mounted on the back of a Bhuiyā leader, who plunging, snorting and neighing, embodies the war-steed of the Chief. Dismounting from his human steed the Chief is seated on the lap of a Bhuiyā leader. The attendant Bhuiyās then receive from the servants of the Chief imitations of the insignia of royalty—banners, *pankhās*, *chāmars*, *chhatras* and canopies, and the hereditary office-bearers range themselves round the Chief. The principal Bhuiyā leader then goes through a religious ceremony by binding round the turban of the Chief a light flexible forest creeper as the *siropā* or honorary head dress conferred by the Bhuiyās: the bands strike up, bards chant odes of praise and the Brāhmins recite the Sāma Veda and finally the principal leader of the Bhuiyās marks the forehead of the young Chief with sandal wood, thereby conveying the *tika* or emblem of investiture. The Brāhmins and the *Bawārta* or prime minister, then in their turn mark the seal of the *tika* with sandal wood. A sword is then placed in the hands of the Chief and one of the Bhuiyā leaders coming forward kneels before the Chief, who touches him on the neck with the sword: this ceremony is symbolical of actual human sacrifice in earlier days: the Bhuiyā leader who has thus been touched with the sword at once disappears and does not return for three days when he presents himself to the Chief as miraculously cured. The Bhuiyās then make offerings to the Chief of rice, pulse, *ghī* (clarified butter),

milk and honey and their leaders then solemnly address the new Chief, impressing on him that in accordance with the authority exercised by them from time immemorial they have invested him as Chief to rule the State with justice and mercy. The Chief then withdraws mounted on his human steed. Soon afterwards or on a subsequent date the Bhuiyās return, and prostrating themselves before the Chief ask for forgiveness of former misdeeds. Their leader then addressing the Chief inquires after his health, his establishment, horses and elephants. In return the State *karan* (writer) reads from a palm-leaf document prescribed inquiries touching the health of the Bhuiyās, their families, cattle, hill streams and fields. The leaders thereupon prostrating themselves raise the left-foot of the Chief and place it alternately first on one shoulder and then on the other, then touching the Chief's foot with their forehead retire. This ceremony is annually repeated in the month of May, but the installation portion of the ceremony is omitted. The Bhuiyās desire in their Chief a leader to whom they can appeal and obtain advice and have no desire for independence: they claim, however, a prescriptive right to approve of or resent the administrative acts of the Chief whom they have themselves created; the periodical rebellions which have taken place have been due to dislike of the individual ruler by the Bhuiyā clans. This attitude was manifest in the rebellion of 1890-1893 when the Chief fled to Cuttack leaving his family in the *garh* which could easily have been taken by the Bhuiyās. The Bhuiyās, however, made no attack on the *garh* as they had no animosity against the family of the Chief, but only against the Chief himself, who had fled. The Bhuiyā *pirs* (tracts) have always been the property of the Rānī of the State, and the Bhuiyās hold her in high veneration, styling her "the mother." In one of their rebellions the Bhuiyās entered the *garh* seeking for the *Bawārtā* (prime minister), they found him in the Rānī's apartments, where he had fled for sanctuary: horrified at the sacrilege that he should have seen the face of their revered mother they put him to death.

Character.

The chief traits in the character of the Bhuiyās are fidelity and hospitality. Like other wild and unsophisticated races they are frank, honest and imbued with a passionate love of liberty. The hospitality of the Bhuiyās has passed into an Oriyā proverb: every stranger is an honoured guest, as amongst the Khonds. Every stranger entering a village is offered to partake of food and is a guest as long as he remains. In every village there is a *darbar* or town hall, which is used as a sleeping place for the young men of the village and for a rest-house for travellers. If

the guest who comes to the village is a personage of importance he is met by all the women: on his entry the women meet him carrying small stools and vessels of water, in which is a little turmeric: the water is sprinkled with *sāl* (*Shorea robusta*) leaves on his feet, and the stools are carried as emblematic of offering rest to the traveller. After sprinkling the feet of the visitor the chief old lady kneels down placing the palms of the hands on the ground as a salutation and is followed in turn by the senior maiden and the guest is then led to the guest-house. Drunkenness is prevalent amongst the males and no ceremony is considered complete without intoxication: drunkenness amongst men is no disgrace, but women refrain from the cup. The women are the workers, finding the daily food and performing all the household duties: the men occupy themselves in a leisurely manner with their cultivation and hunting. They are a courteous race: their form of salutation consisting of bending the lower part of the body, joining and raising the hands to the forehead with palms uppermost and pronouncing in a loud tone the word *salām*. The boast of the Bhuiyā is that he reveres his parents, is a man of one word and of one race, not divided as their Hindu neighbours are.

The Bhuiyas are of Turanian type, the face is round, lips Appearance. full, foreheads narrow, high cheek bones and the broad nose of the Gond and Kol, their eyes are well set and intelligent and usually brown in colour, though clear grey eyes are not uncommon amongst them. In colouring they are tawny to light, of stature short, about five feet two inches, but well proportioned, with fine chests and muscular limbs, hands and feet well shaped, and the free and easy gait of a hillman. The men shave their hair on the forehead, wearing it in long well greased and combed locks at the back: a small red comb is almost invariably carried over the ear and when not otherwise occupied the young Bhuiyā dandy sets his locks in order. The clothing of the hillmen is usually very scanty, consisting merely of a small strip of cloth, called the *kopni* between the legs, fastened front and back to a string round the waist: the use of the *dhoti* is however becoming more common. The young and old men generally wear, when at work, their strips of raw hide wound round the waist to afford support in lifting and carrying burdens: from the string round the waist they usually hang a small pair of pliers to remove thorns from the feet, and a receptacle to carry *ganju* or tobacco, both articles being made of metal. They wear a row or two of beads or berries round the neck and a few for show adopt the Brahmanical thread. The

women wear a short coarse cotton *sāri* (cloth), but never use it to veil their faces: they tattoo their arms and shoulders, and wear ear and nose rings, large bunches of beads and occasionally brass necklaces, covering the bosom and extending to the loins: on their arms, legs and toes they wear bracelets, anklets and rings, their hair they invariably adorn with scented flowers and orchids, interweaving them with coloured cotton

Social
status.

The Bhuiyas are not considered a low caste: the Hindus take water from them and their touch is no defilement.

Language

It does not appear that the Bhuiyas ever possessed a language of their own: they speak a dialect of Oriyā, which they have strangely distorted; their vocabulary is very limited and their conversation usually consists of exclamations and questions.

Customs
and
habits.

The Bhuiyā as a rule marries outside the village, as he is generally connected with the villagers: the greatest care is taken not to contract a marriage, which can in any way be considered to be incestuous: there is no restriction on marriage within the same sept or phatry, rather the marriage relationship should be formed within it. The essential conditions are that both parties should have reached maturity and the choice is entirely a free selection, though parents sometimes advise in the matter. According to village custom the boys and girls frequently dance together of a night, when a young man is at liberty to seize the hand of the girl he has selected and escape with her for two or three days: but the escape is no secret, the parents of the bride go to the bridegroom's relations and fix the dowry. A man will also place a white flower in the hair of the maid he selects and if it be accepted the engagement is held to be binding and no other man may lay claim to the girl. Another form of betrothal is for the lover to walk off with the girl, who has consented to become his wife, from a bevy of maidens in the forest. The maidens then return to the village and reporting that a tiger has carried off one of their number urge the villagers to go in pursuit. A search party is then organised which after going to the spot returns to the house of the parents of the lover: with shouts they demand the blood of the lad who has carried off one of the village maids the parents urge that though an offence has been committed the union must be allowed: they offer to pay blood money and to stand a village feast and the wedding is then celebrated with song and festival.

There is another form of obtaining a bride, but it is only resorted to as a last resource. If a young man has set his heart on a maid and is unable to obtain her owing either to her own unwillingness or that of her relatives, he organises a band of

companions and when opportunity offers carries her off, his companions guarding the flight. This method of obtaining a bride often leads to sanguinary conflicts in the attempt of the friends to prevent the capture. If the young man is successful in the capture his task is not at an end until the girl has been induced to take food in her future husband's home.

The customs described above are only the preliminaries and the marriage is not consummated till the *desh* has been feasted. The actual marriage ceremony is conducted entirely by the women and the village priest. The ceremony consists in sprinkling the couple with water and turmeric, the bride and bridegroom being arrayed in new garments for the occasion. The essential right in the ceremony is however that the couple take their seat together on a yoke, when the nearest male relative offers the bride a coin intimating that he has given her all his wealth and that he trusts she will benefit by it and be true to her husband. Their future home is blessed by the priest who places an inverted earthen pot, under which are supposed to be the spirits of their ancestors, whom the couple must daily worship. Dowries are settled on the bride and often amount to a considerable head of cattle.

Incompatibility is sufficient to dissolve the marriage tie and adultery acts as a divorce. If the adultery occurs with a Bhuiyā, the matter ends with the man marrying the woman, but if the man belongs to another caste, the woman is outcasted. Chastity is not regarded as a virtue, but in such cases the matter is dealt with by the village elders making the girl over to the man and enforcing a marriage. The marriage tie is however faithfully observed and divorce or adultery is but rarely heard of.

Ten days after the birth of a child a festival is held and the mother purified. Those of the Bhuiyās who have come in contact with Hindus have their heads shaved by the barber and their clothes washed: amongst the wilder Bhuiyās, however, one of their own villagers shaves their heads with a razor, locally made, but the clothes are not washed. If a mother dies before delivery the embryo is removed from the corpse, both being burnt on opposite banks of a stream: this rite is performed to prevent the dead woman from becoming a witch; the idea is that no spirit can cross a stream and the mother is unable to become a witch without union with her child. The ceremony of naming is very similar to that practised by the Mundās and Hos. The name of the grandfather is given to the eldest son, that of the great-grandfather to the second son, and then the names of collateral relatives according to seniority. After

Customs
at birth.

the birth and naming ceremonies there are no ceremonies till marriage.

Another not unusual method of naming a child is to give a name in accordance with some event happening on the day of the child's birth. Thus if a European happens to pass through the village on the day of a child's birth, the child will be christened *Sāheb* or *Gorā* : so too, if a Musalmān, a dealer, a peon or a constable, pass through the village the child is christened *Pathān*, *Mahājan*, *Chaprássi* and *Sipāhi*. The anniversary of a festival will also give an opportunity for a name, such as *Soniā* (the first day of the Hindu new year) or *Raja* and *Dasharā*.

Customs
at death.

On death the body is quickly buried in the forest and ten days later a feast is given. The dead are always buried in a deep well, dug grave, usually by the side of a hill stream, as all streams lead to the holy *Baitarani*. After the death ceremony the relatives gather and perform the ceremony of reconciling the deceased with the family ancestral god. The assembled relatives seat themselves in rows in the house and the nearest relative sacrifices a he-goat, spilling the blood at the foot of the inverted earthen pot in which the spirits of the ancestors are supposed to dwell. The ancestors are then besought to receive the deceased and water is sprinkled over the company. In the case of a child dying a fowl is sacrificed. This ceremony is performed in all cases except on that of the death of a pregnant woman or of a leper. On the death of a leading *Bhuiyā* chief the inhabitants of all the neighbouring villages are summoned to the burial : during the nine days, which, in this case alone, are allowed to lapse before the burial, the women keep up the funeral dirge : the corpse is buried on the tenth day and after the death feast the *desh* assemble, and nominate a successor.

Arms.

The arms of the *Bhuiyā* consist of the bow and two-handed axe. No *Bhuiyā* ever enters the forest without these weapons. The bow is made of the male bamboo and the bow string of a thin strip from the outside of the bamboo. The arrow has an iron head with long curving fangs, which render it almost impossible to withdraw the head without causing a terrible wound : for birds and small game an arrow with a cylindrical wooden head is used. They also use a curved sword, a sling, and round disc of iron, but the bow and axe are their general weapons. The iron disc is not unlike a quoit : it is about an eighth of an inch thick and three inches in diameter, the outer edge is very sharp : the method of using it is to whirl the disc on the index finger and let the disc fly : "an expert will sever

a *sāl* sapling two inches thick at a distance of 40 yards. The Bhuiyā carries no shield, but guards with the handle of his axe.

The villages of the Bhuiyās are picturesquely placed at the foot of well-wooded hills by the side of a hill stream. The village nestles in a fine grove of jack trees, to the fruit of which the Bhuiyā is particularly partial. There is one broad street with the houses on either side. The house of the headman and the village elders is in the centre of the street : on the outskirts live the low castes of Pāns and Kols, who perform all the menial tasks of the Bhuiyās. In close proximity to the headman's house is the *darbār* or *mandap* (drum) house, where the bachelors of the village sleep and the place in front is used as the village dancing ground. The *darbār* house is also the village guest-house, here are stored the provisions contributed by the villagers and made up into bundles ready for the immediate use of the guest. Every Bhuiyā tills his own land. During sowing and harvest time he rises before dawn and works till dusk without cessation, but when clearing forest he rests at midday and takes a meal : after his work he bathes, returns to a substantial meal and then goes to the dancing ground. The Bhuiyās construct no tank, holding it contrary to religion to excavate. The men and women always bathe at separate places and great care is exercised never to surprise a female bathing. In the larger villages schools have been established by the State, but the Bhuiyās look on them as useless encumbrances : if a parent be taken to task for the irregular attendance of his children he will, in perfect good faith, offer, in order to give satisfaction, to attend on their behalf. There is a village priest—the *deori*, and a *gharmangi* who is the representative of the maidens and settles love affairs and regulates the dancing.

Amongst the Bhuiyās the family is supreme, and the social bond is not that of the village but of the household. Each *sept* consists of a number of families claiming a common ancestor. Sons have no property during the lifetime of their father and they and their wives share the father's meals, cooked by the common mother assisted by her daughters-in-law. The tribes form federal groups, with a chief in authority over each : succession to the chiefship depends on personal fitness ; if the chief's eldest son be suitable he succeeds his father, otherwise he is tacitly ignored and the nearest suitable male relative is selected. The chiefship only carries with it the respect of the community—the leader is a first among equals—the seat of honour at public meetings, an occasional harvest offering of good-will and the best share of the chase. He cannot transact public affairs of importance

without calling the assembly of elders. As regards theft the principle is restitution, but only for the first offence : for a second offence the culprit is outcasted. In cases of hurt caused in a squabble, the village council admonishes both parties, who then take a brand from a heap of lighted faggots, and as a sign of conciliation extinguish it by spitting on it. On the rare occasions when the State Courts punish an offender, the elders also deal with him, holding that the punishment by the State was for its own satisfaction only.

Revenue. Before the settlement made by Colonel (then Captain) Sir James Johnstone, Government Agent, after the rebellion in 1868 there appears to have been no fixed revenue levied from the Bhuiyās: a house-tax of four annas per house and eight annas per plough was then imposed. A school-fee of one anna per house was also imposed and the old duty of thatching certain State buildings and supplying transport for the Chief, when on tour, was also regulated and duly enforced. The next settlement was made by Mr. H. P. Wylly, Government Agent, after the rebellion of 1893: the rates were fixed at thirteen annas per plough, six and a half annas per house and the school-tax was doubled: on those villages, which objected to the thatching duties, a further tax of three annas was levied: printed *pattās* or leases were given to the headmen. The village sites are changed about once in twenty years or sometimes less. The Bhuiyā cultivates by felling and burning the forest and on the clearings he grows cereals the first year, rice in the next and vegetables in the third year: the plot is then exhausted and a new area is cleared. When all the cultivable area accessible is exhausted the village site is removed. In a few villages there are patches of wet cultivation carried on in a primitive method, but there are signs of a gradual increase in wet cultivation. No complicated land tenures exist: the right to the soil depends on priority of occupation by the village and within the village upon priority of occupation by the individual. No Bhuiyā will cultivate fallow land until he has ascertained from the council of the village that it is unappropriated. Land and agricultural stock always descend in the male line, daughters receiving the moveable property: the idea is that no one should possess land who cannot work it. This is the land revenue system amongst the Pahāriā (hill) Desh Bhuiyās, but the Desh Bhuiyās who have settled elsewhere in the State are amenable to the ordinary land revenue system of the State. All Bhuiyās, however, have to supply once every two years logs for the car festival and ropes made of forest creepers. The collections are made by giving an individual

demand statement to the headman of each village: this demand the headman can check with his *pattā* and he then collects the dues paying them to the head of the *pīr* or tract, who in turn pays in his collections to the treasury. The appointments of headman (*sardār*) of the *pīr* and village headman (*pradhān*) are made by the State, due regard being paid to hereditary claims and the wishes of the people. The *sardār* and *pradhān* receive a strip of silk to wind round the head as a badge of office: they also receive a small commission, but to this they attach little importance. Rice is by no means their staple food, and is only eaten as a relish or at feasts: fruits, bulbs, forest produce and the spoil of the chase are their principal foods.

The religion of the Bhuiyās is virtually one of blood. There are good and bad spirits, but attention is only paid to the latter, as the good spirits require no appeasement. Their gods comprise deities undoubtedly of aboriginal origin and others derived from Hindu theology. The aboriginal deities are (1) Bādām, (2) Gainsari, (3) Bārāhipit, (4) Jānulipāt, (5) Baitaranipāt, (6) Lakshmipāt, (7) Mandalpāt, (8) Mahāthākurānī, (9) Pariālbāgiā and (10) Pitrupāt. The principal deity is the earth god and his son, the tiger god: next come the village mother god, the water god, and the deities of the forest, air and rain. The symbols of these gods are rough stones or logs placed under a lofty *sāl* tree. The Bhuiyā pantheon is a mixed one, but the priests are invariably Bhuiyās. The form of oath consists of swearing on a tiger's skin, holding a little earth from an ant's heap in the hands: an oath is regarded as final. Religion.

Trial by ordeal is a favourite form of decision. The tests are various: a piece of copper, generally a coin (considered the emblem of justice) is placed in a mixture of boiling cow dung and has to be extracted by dipping in the hand without scalding: another form is for an accused to take his stand on the top of a swaying ladder of twelve rungs, 18 inches apart, and pour a mixture of milk and rice into a circle below, which has been previously sanctified: the severest ordeal is to carry in the palms of the hand a piece of molten iron about a pound in weight, with seven green *pipal* leaves between each, a fibre of a creeper (*Bauhinia triandra* Rox.) being placed on the hands as a slight protection: the molten mass to be carried seven paces. Failure to perform the test involves expulsion from the village. Trial by
ordeal.

The gathering of the clans for war or any other purpose resembles in its rapidity the "fiery cross" of the Scottish clans. A meeting of the tribal chiefs is held, the priest blesses the meeting: a thin rope is then made of the *Bauhinia* creeper and

three knots are tied in it, the first in the name of their god, the second in that of their Rājā and the third in the name of the Mahādes̄h.* Below the three knots a number of small knots are tied indicating the number of days within which the gathering is to take place. The sacred emblem is then despatched by a runner to the nearest village, which at once forwards it to the next village.

Festivals.

The Bhuiyās attend the car festival at the headquarters of the State, but this is in connection with the duties they have to perform in supplying timber for the axles and to pull the car with the creeper ropes supplied by them. The Bhuiyās observe with full religious zeal two festivals. The first occurs in February and is known as the *Māgh Poiāi*. Each village in turn observes the festival, so that there is no one fixed date for its performance. The festival is an occasion of much debauchery and intoxication and the celebrants paint and cover themselves with filth; foul songs and jests are indulged in: the women join in the ribaldry but not in the drinking. The festival lasts for three days.

The next important Bhuiyā festival takes place after the harvest and is known as the *Karama*, the object of the festival is the joining in matrimony of two branches of the *karamā* tree, as king and queen; the two branches are placed in the ground together, snakes and birds are netted, the former with their lips sewn together being loosed amongst the women. The union of the two branches is looked upon as essential for a year of plenty. There is a third festival called the *Gamhā Punāi* taken from the Hindus. Both festivals are the occasion of much feasting and ribaldry. To the Bhuiyā festivals there is no fixed date, though there is usually a definite limit for their duration.

The hunting festival *akhin pardhi* lasts two days and all the males take part in it. Each village organises large beats: the spoil is taken to the *pradhān*, headman of the village, who rewards the successful shots with strips of cloth, six yards being given to the slayer of a tiger: the headman receives the lion's share of the spoil.

The Bhuiyās hold the cow sacred; its slaughter or consumption is punished by outcasting. The Bhuiyās use cows in their ploughs, but do not drink their milk and will not milk them.

Future of the race.

The Bhuiyās are not a decaying race and their numbers are on the increase, in 1891 they numbered 87,327 and in 1901, 91,581. The pressure of growing population has driven them to migrate in considerable numbers to the open country abandoning very

* Mahābhārata, Mahārāja, Mahādes̄h.

largely the primitive customs prevalent in their hill fastnesses. Assimilation with other castes is countenanced and regular marriages between Bhuiyās and Goālās take place.

All villages have their *darbār* hall where the bachelors Dances. (*dhangars*) of the village sleep, and in some villages there is also a *dhangarin besā* where the maidens reside. The space between the two houses is the dancing ground. Whenever the young men of the village go to the *darbār* and beat the drums, the young girls join them there, and they spend the evenings, dancing and enjoying themselves without any interference on the part of the elders. The Bhuiyā dances have their peculiar features, but, compared with the lively and graceful movements of the Kols, they are tame performances. The men have each a rude kind of tambourine; they march round in a circle, beating these, and singing a very simple melody in a minor key on four notes. The women dance opposite to them, with their heads covered, and bodies much inclined, touching each other like soldiers in line, but not holding hands or wreathing arms like the Kols. The dances, when confined to the people of the village, are regarded as mere rehearsals. The more exciting and exhilarating occasions are when the young men of one village proceed to visit the maidens of another village, or when the maidens return the call. The young men provide themselves with presents for the girls, generally consisting of combs for the hair and sweetmeats, and going straight to the *darbār* of the village they visit, they proclaim their arrival loudly by beating their drums or tambourines. The girls of that village immediately join them. Their male relations and neighbours must keep entirely out of view leaving the field clear for the guests. The offerings of the visitors are now gallantly presented and graciously accepted, and the girls at once set to work to prepare dinner for their beaux. After the meal they dance and sing and flirt all night together, and the morning dawns on more than one pair of pledged lovers. Then the girls, if the young men have conducted themselves to their satisfaction, make ready the morning meal for themselves and their guests; after which the latter rise to depart, and, still dancing and playing on the drums, move out of the village followed by the girls, who escort them to the boundary. This is generally a rock-broken stream with wooded banks; here they halt, the girls on one side, the lads on the other, and to the accompaniment of the babbling brook, sing to each other in true bucolic style. The song ended, the girls go down on their knees, and bowing to the ground respectfully salute the young men, who gravely and formally return the compliment, and they part. The visit is soon returned by the

girls. They are received by the young men in their *darbār*, and entertained, and the girls of the receiving village must not be seen.

Bhuliā.

The Bhuliā is a weaver caste and is also known by the name of Bholiā, Bhoriyā, Bholwā, Mihir and Meher. A curious fact about this caste is that, though solely domiciled in the Oriyā territories, many families belonging to it, talk Hindi in their own houses. According to tradition they immigrated to this part of the country with the first Chauhān Rājā of the Patnā State. Various local derivations of the name are current, generally connecting it with Bhūluā, to forget. The Bhuliās occupy a higher rank than ordinary weavers and assume the honorific title of Meher. The caste has no sub-castes, except that in Kalāhandi a degraded section is recognised who are called Sānpārā Bhuliās and with whom the others refuse to intermarry. The caste are remarkable as having no regular *barāt* or wedding procession. They employ Brāhmans for ceremonial purposes.

Chasās.

The Chasās or Tasās number 240,439 in the States and are the chief cultivating class of Orissa. In the Sonpur and Patnā States they are also termed Haliyā. They are often confused with the Kaltuyas or Koltās and the latter are not infrequently termed as Koltā Chasās. The Chasās are for the most part of non-Aryan descent. Each family has a sept and family name and marriages are arranged by families, union of members of the same family alone being forbidden. The sept names are totemistic such as *nāga* (cobra), *hasi* (elephant), *dipa* (lamp), etc., and the family names are territorial or titular, e.g., Pitāmundiā and similar names, all names of villages in Angul, and Padhān (leader, chief), Nāyak (headman), Kandrā (bamboo worker), etc. As is usual the various septs worship their totem, drawing figures of them on their houses and will not in any way injure them. The Chasās do not marry within the same family but a man may take a wife from his mother's family. A girl must be wedded before adolescence: if no husband be available, she may be married to an arrow or flower or through the form of marriage with any man in the caste and when a suitable partner is subsequently found, is united with him by the form of widow marriage: divorce is allowed. The dead are usually buried if unmarried and burnt if married.

Dumāl.

The Dumāl number 29,610 and are mostly found in the State of Sonpur (20,139). They are a sub-caste of Gauras or Ahira. The Dumāl admit that they were formerly a branch of Gauras, but now have no connection with them. They are said to derive

their name from a village Dumlā Hadap in the Athmallik State. The Dumāls have no sub-castes, but they have a complicated system of exogamy. This includes three kinds of divisions or sections, the *gotra* or sept, the *barga* or family title, and the *māti* or earth from which they sprang. Marriage is prohibited only between persons who have the same *gotra*, *barga* and *māti*, if any one of these is different, it is allowed. The names of the *mātis* or villages show that their original home was in the States, formerly known as the Orissa Tributary Mahāls, while the totemistic names of the *gotra* indicate their Dravidian origin. The marriage of first cousins is prohibited and girls must marry before adolescence, otherwise a heavy penalty is imposed, the girl being taken to the forest and tied to a tree with a thread, this signifying her exclusion from the caste. In practice, this penalty is avoided by marrying her to an old man, who then divorces her and she can then be married as a widow. Widow marriage is allowed and the widow may marry the younger brother of her late husband or not as she pleases. The women are tattooed on the hands, feet and breast.

The Gandās are a servile and impure caste numbering in 1901, 85,241: they remove dead bodies, both of human beings and animals. The majority are met with in the Patnā and Sonpur States where they number 45,774 and 22,203 respectively. They are a servile caste of village drudges acting as watchmen, weavers of coarse cloth and musicians. In some of the States they are still looked upon as a primitive tribe being generally known as Pān, Pāb or Chik. Under the title of Pān they are largely found in the States of Dhenkānāl, Keonjhar, Māyūrbhanj and Nayāgarh where they number 45,825, 31,295, 24,762 and 12,543 respectively and in the Kālāhāndi State they are found under the name of Doms numbering in 1901, 62,462. The total number of Gandās, Pāns and Doms taken together in the States is 342,307 or 10·8 per cent. of the total population. The Pankās are probably a sub-caste of Gandās: but Gandās and Pankās are generally held to be the same, the real term being Pankā: those who have taken to agriculture should be termed Gandās and those who live by weaving Pāns or Pankās. The Gandās have exogamous septs of the usual low-caste type named after plants, animals or other inanimate objects. Marriage is prohibited within the sept and between the children of two sisters, though the children of brothers and sisters may marry. The remarriage of widows is permitted and the younger brother of the deceased husband takes the widow if he wishes to do so. The Gandās and Pāns have strong criminal tendencies. They

are considered as impure and though not compelled actually to live apart from the village, have usually a separate quarter and are not permitted to draw water from the village well or to enter Hindu temples.

Gauras.

These are the great pastoral caste of Orissa and in the States number 304,230. They possess large and valuable herds of cows and buffaloes and in the States their special avocation is making *ghī* or clarified butter: the pasturage is good and the *ghī* exported from the States commands an exceptional demand. In many of the States it is usual for them to pay in addition to the ordinary pasturage fees, a payment in kind known as *lawardhām ghī*, that is to say, a contribution in *ghī* for the right to erect cattle pens in the forest and take timber for the purpose. They also take charge of cattle from the people of the plains for pasturage in the hot weather and often receive into their custody the bullocks of those engaged in the sleeper carrying trade or the pack-bullocks of traders who in the hot weather and rains return to their homes up-country and return after the rains to ply their trades again. There are several sub-castes of which the Mathurāpurī ranks highest because its members do not carry the *pālī* (palanquin). The Gopapuri sub-caste is noticeable for the fact that the women are almost the only ones in Orissa who do not wear nose ornaments, a circumstance, which they pretend, connects them with Krishna's mythical milkmaids. The young women of both sub-castes prepare the butter and *ghī* which the elder ones take round for sale with their milk. Field labour of all kinds is eschewed by the Gaura women. The sub-caste known as Magadhā ranks last and is probably a recent accretion from some aboriginal tribe.

Ghāsis.

The Ghāsis number 15,542 in the States. They are a very low caste. The Ghāsis are said to come from Mayūrbhanj, but are commonly met with in Gangpur: they serve as sweepers and grass-cutters to horses. They apparently belong to the Karuā sub-caste of the Hāris. They eat the flesh of swine and cattle. They call themselves Hindus, but their priests are of their own caste.

Hāris.

The Hāris number 20,642 and are mostly found in the States of Dhenkānāl, Mayūrbhanj and Nayāgarh. According to their own tradition Brahmā, after creating the four main castes of Manu, found that he had not created any one to keep the world clean. He accordingly rubbed some dust from his arm and with it made the first Hāri. The name is said to be derived from *hār*, a bone. There are various sub-castes, but the Māhtar Hāri alone act as sweepers removing night-soil, but being averse to

touching bodies of dead animals: the sweeper sub-castes eat pork and leavings.

The Juāṅgs are the wildest tribe met with in the States and ^{Juāṅgs.} are probably the most primitive people in existence on the east side of India. They number 11,159 of whom 5,412 are found in Keonjhar, 5,346 in Dhenkānāl, 401 in Pāl Laharā. The tribe is thus confined to a clearly defined tract of country, consisting of the continuous highlands of the large mountain ranges which comprise the northern portion of the Keonjhar and Pāl Laharā States with outlying spurs in Dhenkānāl. The tribe has shown but very slight signs of increase: in 1891 they numbered 9,173 souls and only showed a further gain of 1,986 in 1901. They are exceedingly timid and shy, living as far away as possible from others and their garments in former times consisted of nothing but *asan* leaf aprons. Captain Johnstone, Political Agent in Keonjhar in 1869, was the first to introduce the Juāṅg women to wearing clothes and distributed cloth amongst them: but even to this day their raiment is of the scantiest, and though when they visit the marts they now wear some scanty clothing, in their own homes and at work on their *ghams* in the recesses of the forest they are found clad in their aprons of *asan* leaves. Practically no change has taken place in the development of the tribe since Colonel Dalton described them in his *Ethnology of Bengal* (pages 152-158), and from which the following account, as given in Sir W. Hunter's *Statistical Account of the Orissa Tributary States*, is almost entirely extracted:—

"The tract of country held by the Juāṅgs is not occupied by them alone but hill Bhuiyā villages and many colonies of Goālās occupy the larger portion of it. It is probable that they have been ousted by the Bhuiyā from the fertile valleys, and are thus compelled to restrict their cultivation to the steep hill-sides. The Juāṅgs have no traditions which affiliate them with any other race; and notwithstanding a similarity in their languages they repudiate all connections with Hos or Santāls. They aver positively that they are autochthones, the direct descendants of the first human beings that appeared in the world. They assert a claim to be the first produced of the human race, though they make no pretensions to be the fathers of mankind. The headquarters of the tribe, or cradle of the race, they consider to have been at Gonāsikā in Keonjhar in 21° 30' N. and 85° 37' E., where issues from two holes in a rock, supposed to bear a resemblance to the nostrils of a cow, a stream which is the source of the Baitarani. They assert that the Baitarani is older than the Gauges; and that the present Juāṅg

inhabitants of the village of Gonāsikā, and other villages in the vicinity, occupy the very soil from which the parents of their race were produced. They have no traditions to record.

Habits
and
customs.

"In habits and customs, the Juāngs are most primitive. They occupy a hill country in which stone implements are occasionally found; and though they have now abandoned the use of such implements, and have lost the art of making them, it is not improbable that they are the direct descendants of these ancient stone-cutters. Until foreigners came amongst them; they must have used such weapons, for they had no knowledge whatever of metals. They have no ironsmiths nor smelters of iron. They have no word in their own language for iron or other metals. They neither spin nor weave, nor have they ever attained to the simplest knowledge of pottery. They are still semi-nomadic in their habits, living together in hamlets during a portion of the year, but often changing the sites, and occupying isolated huts in the midst of their patches of cultivation whilst the crops are on the ground.

"The huts are amongst the smallest that human beings ever deliberately constructed as dwellings. They measure about six feet by eight, and are very low, with doors so small as to preclude the idea of a corpulent householder. Scanty as are the above dimensions for a family dwelling, the interior is divided into two compartments, one of which is the storeroom, the other being used for all domestic arrangements. The head of the family and all his belongings of the female sex huddle together in this one stall, not much larger than a dog-kennel. For the boys there is a separate dormitory situated at the entrance of the village with two apartments. One of these is an inner and closed one, in which the musical instruments of the village are kept, and in which most of the boys sleep; the other is open on three sides,—that is, it has no walls,—but the eaves spread far beyond the plinth, and the inmates are effectually protected. This is where all guests are lodged. The Juāngs cultivate by girdling the forest trees, burning them and spreading the ashes over the land. They thus raise a little early rice, Indian-corn, pulses, pumpkins, sweet potatoes, ginger, and red pepper, the seed being all thrown into the ground at once, to come up as it can.

"They pay and render personal service to the Chief by repairing his house and carrying his burdens when required; they are addicted to ardent spirits and buy what they consume, as they have not acquired the art of distilling, or even of brewing rice beer. In regard to food, they are not in the least particular, eating

all kinds of flesh, including mice, rats, monkeys, tigers, bears, snakes, frogs, and even offal. The jungles abound in spontaneously produced vegetables. In the quest of such food they possess all the instinct of the animal, discerning at a glance what is nutritive, and never mistaking a noxious for an edible fungus or root.

"The Juāngs are not a warlike people; but when urged by the Bhuiyās, whose lead they invariably follow, they are sometimes troublesome. They use the bow and arrow, but their favourite weapon is the primitive sling, made entirely of cord. For missiles, they take pebbles or stones as they find them; they have no idea of fashioning them so as to produce more efficient projectiles.

"The Juāngs take young shoots of the *asan* (*Terminalia tomentosa*), or any tree with long soft leaves, and arrange them so as to form a flat and scale-like surface of the required size; the sprigs are simply stuck in the girdle composed of several strings of beads, from which these small curtains of leaves depend before and behind and the costume is complete. The beads that form the girdle are small tubes of burnt earthenware made by the wearers. Their dances resemble very closely those of the Bhuiyās and are monotonous and lacking in execution. Colonel Dalton,* however, saw several animal dances executed by them: the animal dances given being the bear dance, a strutting pigeon, pig and tortoise dance, the quail dance and vulture dance.

"When Colonel Dalton first met the Juāngs in 1866 the males of the community had abandoned the leaves, and used in lieu the smallest quantity of cotton cloth possible for decency. The women were long deterred by superstition from following their example. Several traditions exist to account for this, apparently of Brahmanical concoction. The simplest and prettiest of these, is connected with the origin of the Baitarani. The river goddess, emerging for the first time from the Gonāsikā rock, came suddenly on a rollicking party of Juāngs dancing naked; and, ordering them to adopt leaves on the moment as a covering, laid on them the curse that they must adhere to that costume for ever or die. It was Captain Johnstone in 1869 who induced the Juāng women to wear cotton cloth, but even at the present day they only wear these when they visit the public marts.

"The Juāng women tattoo their faces with the same marks that are used by the Mundās, Khariās, and Oraons: namely, three strokes on the forehead just over the nose, and three on each

* See Colonel Dalton's *Ethnology of Bengal*, 1872, pp. 152-158, and Sir W. Hunter's *Statistical Account of the Orissa Tributary States*, p. 246.

of the temples. They attach no meaning to the marks, have no ceremony in adopting them, and are ignorant of their origin.

"The Juāngs are a small race, like the Oraons, the males averaging less than five feet in height, the women not more than four feet eight inches."

"The Juāngs appear to be free from the belief in witchcraft, which is the bane of the Kols, and perniciously influences nearly all other classes in the States. They have not, like the Khariās, the reputation of being deeply skilled in sorcery. Their language has no words for "god," for "heaven" or "hell"; they have no idea of a future state. They offer fowls to the sun when in distress, and to the earth to give them its fruits in due season. On these occasions an old man officiates as priest, called Nagām."

"Marriage is recognised, but is brought about in the simplest manner. If a young man fancies a girl, he sends a party of his friends to propose for her; and if the offer is accepted a day is fixed, and a load of rice in husk is presented on his behalf. The bridegroom does not go himself to the bride's house; his friends go, and return with her and her friends. Then they make merry, eating and dancing, and all stay and make a night of it. In the morning, the bridegroom dismisses the bride's friends with a present of three measures of husked and three of unhusked rice; and this is a full and sufficient solemnization. A man may have more wives than one if he can afford it. They are divided into tribes, and are exogamous."

"The Juāngs burn their dead, and throw the ashes into any running stream; their mourning is an abstinence for three days from flesh and salt. They erect no monuments, and have no notion of the worship of ancestors. The dead are burned with their heads to the south; in this respect they agree with the Hos and Sāonts."

Kaltayā
or Koltā.

An important agricultural caste numbering in 1901, 30,161: they are mostly met with in the States of Patnā (12,190), Sonpur (8,996) and Kalahandī (3,330). According to tradition they immigrated from the State of Baud, where they had settled during their wanderings with Rāma in the Oriyā country. According to another legend Rāma, when wandering in the forests of Sambalpur, met three brothers and asked them for water: the first brought water in a clean brass pot and was called Sudha (good-mannered): the second made a cup of leaves and drew water from a well with a rope; he was called Dumāl from *dorī-māl*, a coil of rope: the third brought water only in a

hollow gourd and he was named Kolthā from *Ku-rīā*, bad-mannered. The Kolthās, Sudhas and Dumāls thus acknowledge some connection and will take food together at festivals. The Kaltuyās are, however, probably an offshoot of the great Chasā caste: several of their family names are identical with those of the Chasās and there is actually a sub-caste of Kaltuyā-Chasā. The Kaltuyās will not, however, intermarry with other groups of the Chasā caste. The Kaltuyās have exogamous groups and a girl must be married before maturity and if no suitable husband be forthcoming a nominal marriage is arranged. Widow marriage and divorce are allowed. The caste worship the goddess Rānochandī, whose principal shrine is at Sarsarā in the State of Baud. Brāhmins take water from them. The Kaltuyās are excellent cultivators, very industrious and prepared to resort to any degree of litigation where land is involved. They are very skilful in irrigation but are not popular, chiefly because of their greater prosperity. The rising of the Khonds in Kālāhandī in 1882 was due to their discontent at being ousted from their lands by Kaltuyās, a large number of whom had been imported by the Chief of Kālāhandī. These Kaltuyā cultivators speedily got the Khond headmen and their tenants into their debt and possessed themselves of all the best lands in the Khond villages. In May 1882 the Khonds rose and slaughtered more than 80 Kaltuyās, while 300 more were besieged in the village of Norlā.

The Karan, Karnam, Mahanti is the indigenous writer caste *Karan*. of Orissa. In 1901 a total of 21,740 Karans were enumerated in the States. The caste fulfils the same functions in Orissa as the Kāyasthas elsewhere, and it is said that their original ancestors were brought from Northern India by Yayāti Kesari, King of Orissa (447-526 A.D.) to supply the demand for writers and clerks. The word Karan is said to be derived from Sanskrit *karan*, a doer. The derivation of Mahanti is obscure, unless it be from *mahat*, great. The caste prefer the name of Karan, because that of Mahānti is often appropriated by affluent Chasās and others who wish to get a rise in rank. Marriage is regulated according to the table of prohibited degrees in vogue among higher castes. Girls are commonly married before they are ten years old, but no penalty attaches to the postponement of the ceremony to a later age.

The Khandaits are the military caste of Orissa, the name *Khan-* being derived from the Oriyā word *khandā*, a sword. In 1901 they numbered 88,313 in the Orissa States and are found in greatest strength in the State of Keonjhar (29,279). The Khandaits

are like the Maráthás and the Paiks, a caste formed from military service, and though recruited for the most part originally from the Dravidian tribes, they have obtained a considerable rise in status owing to their occupation and the opportunity offered to many of them to become landholders. The best Khandaits now aspire to Rájput rank, while the bulk of them hold the position of cultivators, from whom Bráhmans will take water. Early marriage is usual, polygamy is permitted, but looked down upon and the person resorting to it is nicknamed *mápakhiá* or wife-eater. Widow marriage and divorce are permitted.

Khariás.

The Khariás are a tribe closely allied linguistically to the Juáangs. In 1901 the census returns showed the total number of Khariás in the 24 States at 38,478, of whom 25,838 reside in Gángxpur. This shows a very marked increase in the tribe since the census of 1872, when there were 3,942 Khariás in the States formerly known as the Tributary Mahals of Orissa and 1,613 in the Tributary States of Chotá Nágpur, or a total of 5,555. The increase has been most marked in Gángxpur, and the census reports of 1901 attribute this to more careful classification. Tradition has it that the Khariás, with another tribe called Puráns, are aborigines of Mayúrbhanj; and they aver that they and the family of the Rájā (Bhanj) were all produced from a pea-fowl's egg, the Bhanj or family of the Rájā from the yolk, the Puráns from the white, and the Khariás from the shell.

The primitive and wildest members of this tribe reside in the Tarai country round the Simlápál and Meghásani hill ranges in the Mayúrbhanj State. They are the only persons to wander forth over this wild tract of country, spend days and weeks wandering through the dense and tractless forests and vast hill ranges, in search of jungle products, such as honey and horns: they are experts at catching young birds, especially the hill talking *mayana* and the large brown tree squirrel, which they sell to the people of the plains.

Khonds.

The Khonds are the most important and most numerous of the aboriginal tribes in the States. According to the census of 1901, the Khonds numbered 223,424, of whom 103,086 were found in the State of Kaláhandi, 33,400 in the Patná State, 14,914 in the State of Baud and 6,399 in the Bámra State. The Khond population in the 17 Tributary States of Orissa in 1901 totalled 71,484 and members of this tribe are found in all the States. So far as the States are concerned the Khonds are most prominent in the Kaláhandi State, where are found the wildest and most uncivilised members of the tribe: a detailed account of the

Khonds of this tract will be found in the separate article on the Kalāhandi State. The practice of human sacrifices was in former years universal amongst the Khonds and special measures had to be enforced to put down this infamous custom. Lieutenant (afterwards Major) Macpherson, one of the officers engaged in these operations, drew up in 1841 a full report on the habits and customs of the Khonds. With the spread of civilisation and the improvement in communications, the Khonds have gradually more and more adopted Hindu customs and large numbers have abandoned their ancestral hills and forests for regular cultivation in the plains: a large proportion, however, of the tribe still cling to their mountain fastnesses and preserve intact their ancestral traditions. With the advent, however, of settled rule of the British Government, the dispensation of criminal justice by the Khonds according to their tribal principles has ceased and only petty assaults or trifling thefts, when the parties concerned agree, are dealt with by the tribal headmen. An exhaustive and detailed account of the history, and social and religious customs of the Khonds, will be found in the *Gazetteer* of the district of Angul.

The Paiks form the bulk of the old feudal militia of Orissa, Paiks, being as the name indicates "foot-soldiers." They are especially predominant in the State of Kalāhandi (13,598) and Patnā (2,353). The Paiks are classified as a subdivision of Chasās. Sterling gives the following account of the Paiks:—

"The Paiks or landed militia of the Rājwārā, combined with the most profound barbarism and the blindest devotion to the will of their Chiefs, a ferocity and unquietness of disposition, which have rendered them an important and formidable class of the population of the Province. They comprehend all castes and classes, chiefly perhaps the Chasā or cultivating tribe; occasionally individuals of the lowest castes are found amongst them, as Kandrās, Pāns and Bauris; and the fashion has often prevailed of adopting into their order some of the more savage inhabitants of the remote hills called Khonds, as also even Musalmāns and Telingas. They are paid by service lands, which they cultivate with their own hands in time of peace, subject to the performance of military and rude police duties whenever called upon by their Chiefs."

With the establishment of settled rule, there is no longer any necessity for the large bodies of Paiks. Their service lands have in most cases been gradually resumed, and they have laid aside the sword for the plough. But the assessment of their *jāgirs* has not been accomplished without difficulty. Mr. Commissioner Ravenshaw writing about 1873 says: "It has been

always found to be a most difficult matter to bring the Paik under a system of revenue payment and repeated instances have occurred in the Tributary States where insurrection has resulted from rash attempts to assess service tenures. The process, however, has been gradually carried out ; and most of the Paiks now pay a nominal rent for their *jāgirs* generally in kind." The Paiks are still exempt from *bethi* or the liability to carry loads and render other menial service.

In Kālāhandi the Paiks, however, still hold a very prominent position and are men of substance cultivating each six *putis* of land rent-free. In this State they are known as *Naliā sipāhis* being armed with match locks. The Khandaits appear to have been the leaders and officers of the militia and the Paik, the rank and file, mainly recruited from the forest tribes and they are counted as a comparatively low caste.

Sahars. The Sahars are numerous in Orissa and in the States number 40,719. They are found chiefly in the States of Dhenkānāl, Athgarh, Keonjhar, Mayūrbhanj, Ranpur, Tācher, Khandparā, Tigiriā, and Pāl Laharā. They are said to be different from the Savars. Many are day-labourers. They subsist largely on jungle products and are skilful hunters and fowlers. They employ no Brāhmans, and their chief object of worship is the Grām Devati. There are three endogamous sub-castes, Basu, Paliā and Paika. Nothing is known about their origin. They allow divorce and the remarriage of widows. They drink wine and eat all kinds of animals.

Sansiā Oriyā. A caste of masons and navvies of Orissa. The caste are really a branch of the great migratory Ud or Odde caste of earth-workers, whose name has been corrupted in various forms. The term Oriyā is here a corruption of Odde, and it is the one by which the caste generally prefer to be known, but they are generally called Sansiā by outsiders. The caste sometimes class the Sansiās as a sub-caste of Oriyās. In 1901 the Sansiās numbered 7,285 in the States. They enjoy a fairly high position, and Brāhmans will take water from them. They have totemistic exogamous septs, usually derived from the names of sacred objects as *kach-hap* (tortoise), etc. The caste are usually stone-workers, making cups, mortars, images of idols, and other articles. They also dig tanks and wander from place to place for this purpose in large numbers.

Sudhas. The Sudhas or Suds numbering 27,324 are most numerous in the States of Baud, Athmallik, Sonpur, Narsinghpur, Rairākhōl and Ranpur, and also occur in the States of Hindol, Bāmra, Tācher, Daspallā, Nayāgarh, Dhenkānāl, Patnā, Khandparā,

Pal Laharā, Keonjhar, Kālāhandī, Athgarh and Mayūrbhanj. According to tradition they were the dominant power in Baud, with whose Chief they still claim relationship. Though now cultivators they believe that they were formerly soldiers and adore guns in consequence. They adore the *bakul* tree and on no account will fell it. They are divided into four sub-castes, (1) the Bara or high Sudhas, (2) the Dehri or worshippers, (3) the Kabāt-koniā or those holding the corners of the gates, and (4) the Butkā. The latter are the most primitive and think that Rairākhol is their first home. They relate they were born of the Pāndava hero Bhīm Sen and the female demon Hidimbi and were originally occupied in supplying leaves for the *śrāddha* ceremonies of the Pāndava brothers, hence their name Butkā or "one who brings leaves." The Butkā are practically a forest tribe carrying on shifting cultivation like the Khonds. They claim to have once ruled Rairākhol: during the constant wars between Bāmra and Rairākhol the whole of the Rāj family of Rairākhol were killed except one boy who was hidden in a cradle on uprights by a Butkā woman, and when the Bāmra soldiers came to seek for him the Sudhas swore, "If we have kept him either in heaven or earth may our God destroy us." The Bāmra people were satisfied and the child was saved: he received the name of Jonāmani or "Jewel among men" which the family still bear. In consequence of this incident, the Butkā Sudhas are considered by the Rairākhol house as a relation on their mother's side: they have several villages allotted to them and perform sacrifices for the family. In some of their villages nobody may sleep on a cot or sit on a high chair, so as to be between heaven and earth in the position in which the child was saved.

The Sudhas have totemistic *gotras* such as *bhaluka* (boar) and *bargas* or family names such as Thākūr, and Dānaik. The *bargas* are more numerous than the totemistic septs and marriage either within the *barga* or within the sept is forbidden. There are no intermarriages between the Sudhas of Baud and Athmalik and those residing in the other States. They practise infant marriage. When a girl reaches adolescence, she is, if no suitable bridegroom be forthcoming, married to an old man who divorces her immediately afterwards or is married to an arrow. She can then remain single without blame until a suitor appears whom she marries by the form of widow remarriage. In this respect the Sudhas resemble the Chasās. A betrothal is sealed by tying an areca nut in a knot made from the clothes of a relative of each party and pounding it seven times with a pestle.

Taonlās.

A small non-Aryan caste. They reside principally in Dhenkāl, Hindol, Barāmbā, Talcher and Narsinghpur and numbered about 17,295 persons in 1901. The name is said to be derived from Tālumūl, a village in the Angul district; and they came to Bāmra and Sonpur during the Orissa famine in 1866. The Taonlās appear to be a low occupational caste of mixed origin, but derived principally from the Khond tribe. Formerly their profession was military service, and it is probable that like the Khandaits and Paiks they formed the levies of some of the Oriyā Rājās and gradually became a caste. The Taonlās are said to be allied to the Savars and to admit a member of any caste from whose hands they can take water into the community. In Sonpur the Taonlās admit a close connection with Chasās and say that some of their families are descended from the union of Chasā men and Taonlā women. The Taonlās have no exogamous divisions: their marriages are therefore regulated by relationship in the ordinary manner. Divorce and widow remarriage are permitted.

CHAPTER IV.

PUBLIC HEALTH.

THE number of dispensaries maintained by the States was 39 in 1907-08 and two more are in course of construction. In all the States, with the exception of Tigrina, where there is only an Ayurvedic Hall, dispensaries are maintained at the headquarters and in the larger States of Bāmra, Dhenkanāl, Gāngpur, Kālāhandi, Keonjhar, Mayūrbhanj and Sonpur, and also in the States of Bonai and Nayāgarh there are dispensaries in the interior, mostly situated at the headquarters of subdivisions and important zamindāris. All the dispensaries are in charge of qualified Civil Hospital Assistants, and in the States of Bāmra, Dhenkanāl, Gāngpur, Keonjhar, Mayūrbhanj, Nilgiri, Patnā and Sonpur there are Medical Officers in charge with qualifications equivalent to those of Assistant Surgeons. All the dispensaries are well supplied with medicines and surgical instruments and have accommodation for male and female in-door patients: the dispensaries and their equipments at Bāmra, Dhenkanāl, Gāngpur, Kālāhandi, Mayūrbhanj, Patnā and Sonpur are excellent. Medical attendance for females has of late years begun to receive attention, and there are female Civil Hospital Assistants attached to the dispensaries of Dhenkanāl, Kālāhandi, Keonjhar, Mayūrbhanj, Nilgiri and Patnā. A great change has come over the people of the Garhjāts in their attitude towards the use of European medicine and submission to surgical operations. The figures below of patients treated during the last five years show the great increase in the popularity of the State dispensaries during that period:—

1903-04	...	...	...	273,167
1904-05	...	...	...	275,624
1905-06	...	...	...	293,719
1906-07	...	...	...	305,617
1907-08	...	...	...	333,566

At any important centre there is now a great anxiety evinced by the people of all classes and races for the location of a dispensary, and any Civil Hospital Assistant who is capable and sympathetic quickly gains a large attendance. The change is a remarkable

MEDICAL
INSTITU-
TIONS.

one, but perhaps only to be expected with the general advancement that is now rapidly taking place.

**PRINCIPAL
DISEASES.**

The principal complaints are fever and bowel complaints, and these two, especially fever, account for the majority of the number of deaths: severe outbreaks of cholera not infrequently visit the States: these outbreaks are generally due to imported infection, the Garhjāts forming a highway for vast numbers of pilgrims on their way to and from Puri. the greater number of these pilgrims are of the poorer classes travelling on foot, who readily succumb to the attacks of any epidemic. Small-pox visitations are often severe, especially in the 17 States formerly known as the Orissa Tributary Mahāls, but with the spread of vaccination are becoming less virulent and less common. In the Sambalpur States small-pox but rarely occurs. Syphilis is exceedingly common in the Garhjāts and is of a very virulent type: leprosy is not uncommon and elephantiasis is bad in the States bordering on the Puri district.

VACCINATION.

One of the most marked features of recent years is the rapid strides made in vaccination work in the States. In some of the States, principally the 17 States formerly known as the Tributary Mahāls of Orissa, vaccination is paid for by the people: in the Sambalpur States, (except in Bāmra) and in Gangpur and Bonai, vaccination is free: in all cases the work is carried on by properly trained vaccinators, who in many instances are local men trained in the vaccination class maintained by the States for this purpose, at the Medical School, Cuttack, though in some cases with the employment of fully qualified Medical Officers, these vaccinators are now locally trained in the States. The vaccinators in all instances are supervised by Inspectors who are generally Civil Hospital Assistants and, in addition to their duties of supervision of vaccination, are peripatetic doctors rendering medical assistance to the villagers, being deputed to attend on occasions of outbreaks of cholera, small-pox and cattle diseases in the interior: these peripatetic Civil Hospital Assistants also attend to village sanitation. Vaccination is mostly from lymph, but in the Sambalpur States, vaccination direct from the calf, is available for those who prefer it. All the Chiefs are now entirely responsible for the vaccination work in their States: till recently in the 17 States, formerly known as the Tributary Mahāls of Orissa, and the States of Gangpur and Bonai the Sanitary Department used to conduct and supervise the work. Vaccination generally has received much greater attention for some years in the five States transferred from the Central Provinces than in the other States of this Agency: this has no doubt been due to the personal

influence of the Chiefs and probably to a large degree to the fact that vaccination is free: this is supported by the fact that in Gangpur and Bonai where free vaccination has been introduced for the last two years there has been a most marked increase in the operations. Revaccination in the 17 States, formerly known as the Tributary Mahāls of Orissa, and the States of Gangpur and Bonai was up to within the last three years very little practised and previously was practically unknown: it has, however, now made a beginning as the figures below show. In Patnā and Kālāhandi revaccination has always received the greatest attention and a case of small-pox, except an occasional imported case, is now almost unknown. The extensive operations, especially of revaccination, in Patnā and Kālāhandi, are worthy of note in view of the very large Khond population (136,486) in these two States. The statement below illustrates the progress of vaccination and revaccination of recent years.

YEARS.	17 STATES FORMERLY KNOWN AS THE TRIBUTARY STATES OF ORISSA.		STATES OF GANGPUR AND BONAI.		5 SAMBALPUR STATES.	
	Primary vaccina- tion.	Revac- cation.	Primary vaccina- tion.	Revac- cation.	Primary vaccina- tion.	Revac- cation.*
1904-05	50,857	117	10,941	925	37,906	27,390
1905-06	50,426	2,383	10,796	1,138	51,012	20,753
1906-07	70,637	5,063	9,777	3,676	44,196	34,030
1907-08	65,807	17,314	10,565	13,370	30,910	40,050
TOTAL	253,727	24,877	42,089	20,109	173,014	122,223

* Of these the figures for revaccination were—

	Patnā.	Kālāhandi.
1904-05	13,985	8,453
1905-06	16,035	2,094
1906-07	18,563	9,061
1907-08	21,046	12,525
Total	69,629	32,733

CHAPTER V.

AGRICULTURE.

GENERAL
DESCRIP-
TION.

THE States of Orissa present very varying conditions of soil and conformation of surface, from the bare rock of the mountain peaks, the loamy but rocky soil on the hill slopes, the rich deposits of the valleys in the hills to the wide open plains along the course of the large rivers of the country. In all cases, however, the system of agriculture is the same and is entirely dependent on the rainfall: canals and embankments on any large scale are unknown, though in Bāmra, Mayūrbhanj and Dhenkānāl a commencement has been made in this direction.

SYSTEM
OF CULTI-
VATION.

In nearly all the States the most primitive system of cultivation, *dāhi* or *phām*, is pursued alongside regular systematic cultivation: the degree to which this primitive system is followed in each State depends on the amount of forest or open country available. When preparing a *phām* the large trees are ringed, and the smaller ones are cleared by the hatchet and fire. The soil is then scratched with primitive hand-ploughs, and a fairly good miscellaneous crop, consisting of early rice, maize, millets, oil-seeds, turmeric, etc., is raised for two or three seasons: the site is abandoned for a fresh one and is allowed to rest until again covered with jungle when the same process is repeated. In the States of Athmallik, Bāmra, Bonai, Kālahandi, Keonjhar, Pāl Laharā and Rairākhoh, where the country consists for the most part of vast tracts of lofty hills and dense forests, the system of *dāhi* cultivation is followed to a very large extent, whilst in more open country, such as is found in parts of Baud, Dhenkānāl, Mayūrbhanj, Patnā and Sonpur, regular plough cultivation of a high order is universal: in all the States, however, both systems exist side by side: the Kaltūyās of Kālahandi and the Sambalpur States, and the Agariās of Gangpur and along the valley of the Brāhmaṇi in the Bonai State are first class cultivators and past experts in skilful terracing, and the construction of tanks and *bandhs* to irrigate their lands. It is extraordinary to find side by side with cultivation of this nature the reckless and wasteful system of *dāhi* cultivation. With the interest now being taken by the States in the proper conservation of their forests this system of *dāhi* cultivation has received a

check. In a few instances the members of the indigenous tribes have been removed from their *jhams* within the reserved forest areas and assigned prescribed areas within which to practise this form of cultivation or settled on the open country being provided with land, bullocks and seeds: endeavours are also being gradually made to induce others to give up this destructive form of cultivation by offering lands and advances for seed and plough bullocks. The practice of *dāhi* cultivation by regular cultivators in addition to their plough cultivation has now been stopped. The system is, however, on the wane; let alone the fact that the area has been restricted by the formation of forest reserves, the pressure of population has compelled the indigenous races to burn their *padās* or *jhūmīng* tracts every third or fourth year, whereas formerly it was possible to allow a *padā* eight to ten years' rest: this is naturally rapidly deteriorating the productiveness of the system and it is rarely now-a-days that a really good crop can be reaped off the *padās*. This no doubt accounts for the fact that so many of the two principal wild tribes of these States, the Bhuiyās and Khonds, are becoming Hinduised and settling in villages and working lands alongside regular cultivating classes: at the same time, however, they generally hanker after a small piece of *dāhi* cultivation on a hill-side neighbouring on their plough cultivation. No more pitiable sight can be seen than that presented by the Bhuiyā *pus* (tracts) of Bonai, Keonjhar, and Pal Laharā and the *padās* of the Khonds in the extensive expanse of hills on the eastern side of the Kālahandi State: hill-sides which formerly carried magnificent timber are now either bare or covered with small poles and scantlings, which are immediately felled so soon as they will yield enough ash to raise even a scanty crop.

The valleys and open plains are fine undulating country, which readily lends itself to the construction of tanks and small embankments for irrigation: the villages along the banks of the Mahanadi and Brāhmani, especially in the Sonpur, Baud and Tācher States, are exceptionally equipped with fine tanks. In the Sambalpur States and in some of the other States it has for several years been a fixed policy to encourage the village lessees or *gaontīās* to improve their villages in this way by granting those, who do so, a protected status, which prevents their being ousted at the time of re-settlement, if they are prepared to enter into a new agreement on fair and reasonable terms and have not been guilty of regular default, or failure to comply with their prescribed duties.

The system of cultivation has been described in the articles on each individual State and requires no detailed mention. It may be briefly stated that there are the following forms of cultivation:

IRRIGATION.

PRINCIPAL CROPS.

(1) Regular (*jami*) rice cultivation; (2) Upland (*āt, gorā, tānr*) cultivation of rice entirely dependent on the rainfall; (3) cultivation of oil-seeds, millets, and cotton on high clearings in forest land, where the low scrub-jungle is burnt, or boughs are cut, dragged to the spot and burnt, the ashes being ploughed into the ground as a fertiliser; this form of cultivation is locally known as *beurā*; and (4) lastly, the regular *dāhi* or *jhūm*ing.

Rice.	The staple crop is rice, of which generally speaking two varieties are grown, viz., <i>āus</i> or <i>bīālī</i> reaped in September, and <i>āman</i> or <i>sārād</i> , the late winter rice, and the chief crop of the country. In a few places, but to quite an insignificant extent, spring rice or <i>dālua</i> is cultivated along the edges of basins which remain wet throughout the year: this early spring rice is a feature of the southern tracts of Kālāhandī. The methods of cultivation are identical with those prevailing elsewhere in Orissa.
Other cereals and pulses.	Rice is, of course, the principal food crop but is supplemented by millets, such as <i>china</i> , <i>māndā</i> or <i>maruā</i> , etc., and maize and pulses form a large part of the dietary of the people, including <i>birhi</i> , <i>māga</i> , <i>kulthi</i> , <i>rahar</i> and gram.
Oil-seeds.	The chief oil-seeds grown are mustard, sesamum and castor-oil seeds, castor-oil being sometimes used by the poorer classes for cooking.
Sugar-cane.	Sugarcane is extensively cultivated and a considerable export trade is carried on in the sugar manufactured.
Wheat.	Wheat grows luxuriantly in the hill area of the Kālāhandi State, but is not regularly grown by the Khonds, who prefer the rough and ready system of <i>dāhi</i> or <i>jhūm</i> cultivation and the raising of turmeric for export. Wheat is cultivated by the zamindārs of these tracts in their home-farms and by members of their families, holding villages as maintenance grants. The wheat is readily irrigated from the perennial springs which cover this country in every direction. There is nothing to prevent wheat being cultivated here on a large scale, and with the advent of the Raipur-Vizianagram railway should prove a very profitable undertaking to the cultivators: some water-power mills from Dehri on the Son have recently been introduced. Cotton is largely grown, but is mostly of a very inferior quality: a good deal of it is locally manufactured for home use, but a certain quantity is exported.
Cotton.	
Tobacco.	Tobacco is raised on the rich silt deposits of rivers and near homesteads, where cattle manure is plentiful.
Turmeric.	Turmeric is extensively grown, especially by the Khonds, for export, and all the ordinary vegetables are cultivated, the commonest being the brinjal or egg-plant and pumpkin. The forests produce various edible roots, such as the <i>kandā</i> (large yam) and <i>tikhuri</i> (arrow-root): the latter is prepared by placing the root in earthen jars
Vegetables.	
Edible roots.	

with water and then boiling: the aborigines largely subsist on these products. As a result of the growth of population within the States, of immigration from outside and of improved communications, cultivation is steadily on the increase; extensive clearances are being made on all sides, and the problem in every State is how to devise measures for the proper conservation of the forests without unduly restricting the reclamation of waste lands.

In most of the States little has been done to introduce new varieties of crops or improved seeds. In the State of Mayurbhanj, however, an experimental farm is maintained and useful work done: experiments with jute, potatoes, the Central Provinces drought-resisting *das* paddy, and various other kinds of paddy and ground-nuts have been carried out: Messrs. Shaw, Wallace & Co. have undertaken in this State experiments in cotton cultivation: on their farm various kinds of cotton have been tried including the Sambalpur tree cotton; the cultivation is, however, still in the experimental stage. At Nayagarh an experimental farm has been opened for three years, experiments being conducted in jute-growing which have been fairly successful and several of the well-to-do tenants are taking up its cultivation: experiments have also been tried with fair success in drought-resisting paddy and the seeds distributed to the tenants. In Bāmra the Chief has a large farm near Balam, some ten miles from the headquarters, and here superior crops and vegetables of various kinds are grown on an extensive scale. In Athgarh the Chief takes an interest in agricultural experiments and has started an experimental farm where superior varieties of paddy are experimented with.

Sericulture is also being carefully and scientifically carried on in the States of Mayurbhanj, Dhenkāl and Keonjhar: progress has so far been greater in the former State and tenants of certain Christian villages as well as other tenants of the State have taken up the industry: both shrub and tree mulberry are grown; in Keonjhar the work has made less progress: in all these States the sericultural operations are in charge of experts and scholarships are given by the Dhenkāl State to students to proceed to Rājshahi to study. The Dhenkāl State has sent a student to Japan to study sugar-making. In the five States transferred from the Central Provinces, the cultivation of *jowār* is encouraged by awarding prizes to schoolmasters for the best crop raised during the year: to all the schools small gardens are attached and the children taught to grow English vegetables; there are similar gardens attached to the police stations and good vegetable seed thus finds its way amongst the people generally. It is by no means uncommon

EXPERI-
MENTAL
FARMS.

SERICUL-
TURE.

in the cold season when touring in these States to receive a present of a good cabbage or cauliflower grown in the garden of the headman of the village.

Plough.

The plough in use is very similar in all the States. The tribes who practise *dāhi* cultivation use a small hand plough; it is little more than a curved bough. The plough in use varies slightly in different places to suit the variety of soil met with. The ploughs in use for regular cultivation are of two kinds, the distinguishing feature being in the one case the use of two wooden pegs on the yoke within which to confine the neck of the bullock, and in the other only a single peg on the inner side is used to which is fastened by a hook or through a hole at its lower end a cord passing round the neck of the bullock and attached to a small knob on the outer extremity of the yoke. The former type is found in the wilder parts of the country, such as Bonai, where the cattle are allowed to graze in herds in the large forests, and are very wild and unmanageable when yoked in the plough: the two wooden pegs make it easier to steady the bullocks, but have the disadvantage that it is very difficult to turn and direct them and the ploughing is naturally inferior: the latter type is found in the more open and cultivated tracts. In Bonai the Bhuiyā cultivator uses a plough of *bandhan* wood: the wood is not kept to season as it perishes unless made up at once: this plough only lasts for about a year and the cost of the plough including the iron share is ten annas: a plough without the yoke (*juāli* or *juādi*) costs four annas and the yoke, if bought separately, costs two annas. The plough-stock (*naugal*) is made in one piece with a slot for the share (*phāl* or *kasanā*): there is no iron band or ring to keep the share firm in the stock. The share is a long narrow piece of iron. The plough is fashioned by means of a chisel known as *bindhani* and a wooden mallet (*katā*). The plough has two wooden pegs on the yoke for harnessing the bullocks. The other type of plough is usually made of *sāl* and has a longer life and costs in the States round Sambalpur about eleven and-a-half annas. The yoke has only *parchāli* or inner pegs and no outer pegs (*kānkhilā*); the place of the latter are taken by two small knobs on the top of the yoke, from which a piece of cord is attached; this cord passes under the neck of the oxen and is fastened to the lower end of the *parchāli* by an iron hook or through a hole made therein.

**DOMESTIC
ANIMALS.**

The ordinary value of each kind of domestic animal is—cow, Rs. 5 to 15, bullock, Rs. 5 to 20, she-buffalo, Rs. 10 to 20, he-buffalo, Rs. 10 to 30, goat, Rs. 1 to 3, pony, Rs. 10 to 50.

Ponies are not much used except for riding by the few well-to-do people, such as the headmen of the villages; these ponies are very small and only up to very light weights, but are extremely hardy. The better class of ponies have all to be imported: Bhutiā ponies do well and are a favourite type with those who can afford them.

Buffaloes and bullocks are employed in ploughing, the ^{CATTLE.} former being specially useful in tilling hard soil. Cow and she-buffaloes are prized for their milk, which besides being drunk is largely utilized for making *ghi* (clarified butter) both for local consumption and export. Pasture lands are generally plentiful on account of the existence of extensive waste lands and forest areas and no difficulty is experienced in feeding cattle. In fact, herds are annually brought in large numbers from the plains to graze in the States. The local breeds of cattle, however, are exceedingly poor and of small stature. The quantity of milk which a cow gives is very small: it is difficult to find an animal which will give a seer a day: the sale price of a milch cow is one rupee per chittack ($\frac{1}{8}$ th of a seer) of milk given daily.

CHAPTER VI.

NATURAL CALAMITIES.

- FAMINE.** THE States of Orissa are not subject to the ravages of severe famine. The great famine of Orissa in 1866 did not affect the
- Scarcity.** Garhjāts. In recent years, however, in 1897, 1900 and 1908 some of the States have suffered from considerable scarcity. In 1900 the distress from scarcity was severe in the Patnā and Sonpur States, relief works were undertaken and kitchens played a prominent part in the relief given, but so far disastrous and widespread famine has been unknown. The distress of 1908 was due
- FLOOD.** to two causes, viz., early cessation of the rains and devastating floods of the Mahānadi and Brāhmanī rivers along the riparian villages on the lower portion of their courses. This immunity to real famine is due to the conformation of the country, which renders it little subject to flood except in certain limited areas, and which, owing to forest-clad hills, is better able to retain moisture than the country of the plains. The population is sparse, but its annual expansion and the consequent disappearance of the forests is apparently rendering the country more liable to sudden floods. The country lends itself to easy irrigation by the construction of tanks and embankments at no great cost. The villages and forests abound with mango, jack, *mahuā*, *chār* and ebony trees, which yield favourite articles of food with the people: the jungles produce many kinds of edible roots and tubers. The population is very largely composed of indigenous races, who regularly subsist, when short of rice or *māndiā*, on the jungle products and the spoils of the chase. During the season when the *sat* is in flower the Kols practically eat nothing else, and this they do from choice. The Kol, Bhuiyā and Khond will frequently not take the trouble to cultivate, even though he can readily do so, enough rice or *māndiā* to supply the needs of himself and his family throughout the year.

CHAPTER VII.

RENTS AND WAGES.

REGULAR surveys and settlements were till lately rare in the **RENTS.** States. The measurement was usually done roughly by bamboo poles, rents being supposed to bear some relation to outturn, but the mode of calculation was often very crude. There is seldom any rack-renting. In the States which have come under the administration of Government, the lands have been regularly classified and rents assessed according to the classification. In the State of Mayūrbhañj the Chief has undertaken regular settlements on scientific principles and a regular settlement staff is maintained to keep these settlements up-to-date. In the five States transferred from the Central Provinces, regular settlements based on the soil factor, and soil unit system in vogue in the Central Provinces have been made for some years past, but in the wilder tracts of these States large areas populated by the Khonds, Binjhāls and other wild tribes have only been summarily settled, the rents being merely nominal and based on the supposed seed capacity of the soil. In Gāngpur a regular settlement is now in progress, but hitherto the only system known has been an estimation by a body of umpires, who, after examining a village, assess approximately in their opinion the quantity of first, second and third class rice lands in the village: the system is known as the *nazarpaimān* or eye-measurement; villages so settled are known as *kut* villages and opposed to *akut* villages where no such settlement has been made. In the Pābari *pargana* of Bonai the rents are assessed on the plough and the Bhuiyās of Bonai, Pāl Laharā and Keonjhar pay only a house-tax. The Chiefs have large *khamārs* or farms which they either cultivate themselves or let to under-tenants from whom they receive half the produce as their share. Rent-free grants to Brāhmans, temples and others cover large areas and are seldom violated. It is also usual to grant service tenures or *jāgirs* to *paikās* (feudal militia), servants and dependants and *khanjā* or maintenance grants to relatives, which are, however, resumable at the option of the Chief. A few tenures are held at a quit-rent. The rest of the land is the

property of the State and is known as the *khalsa* area: 'it' is held by tenants who pay rent direct, intermediate rights or tenures being practically unknown. Formerly the whole or a part of the rent used to be realised in kind, but cash payments have now to a large extent become the rule. The right of occupancy is firmly established by custom, and so long as the tenant pays rent his possession is undisturbed, but alienation by sale, gift or mortgage is subject entirely to the permission of the Chief, and is usually carefully guarded against and in several States is strictly forbidden.

WAGES. There is little of skilled labour in the Garhjāts, except carpenters, blacksmiths and masons who are paid 2 annas 3 pies to 1 rupee 4 annas per diem. Unskilled labour does not cost more than two to three annas per diem while agricultural labour is generally paid in kind. The custom of paying the village artisans and menials and *chankidārs* (watchmen) in kind at harvest time is common. For a detailed account of the various classes of land labourers in the States a reference may be made to the articles on the States of Kālāhandī, Nayāgarh, Patnā, Rairākhhol and Sonpur.

Bethi be-gāri. It is a generally recognised custom for the Chiefs to demand and obtain *begāri* or free labour from certain castes and classes for carrying their luggage or that of any official, and performing various other domestic services, such as thatching houses, etc. But the persons while so employed are always given full daily food, and in some cases they also have small rent-free grants. The privilege extends to certain favoured persons such as the relations or principal officers of the Chiefs.

The headmen or *gaontīās* of the villages and also the Chiefs for their *khamārs* or private lands receive *bethi* labour: this consists of free assistance from each house of cultivating tenants of one plough for preparing the lands for sowing, one plough at time of re-ploughing (*bihurā*) and two sickles at harvest.

CHAPTER VIII.

*OCCUPATIONS, MANUFACTURES AND TRADE.

THE great majority of the population, 70·4 per cent., of the States follow agriculture as their means of livelihood: the proportion of the population following industries and profession is only 13·9 and 0·27 per cent. engage in trade. OCCUPATIONS.

The States are not remarkable for any very special manufactures; at Kantilo in the Khandparā State and in the Narsinghpur State a considerable manufacture of brass utensils is carried on: these find their way throughout the States, but are entirely of the ordinary pattern and in nowise remarkable either for design or workmanship: the next most important industry is the weaving of tussar cloth at Sonpur and Binkā in the Sonpur State; an account of this industry will be found in the article on that State. At Māniābandha in the Barāmbā State a small settlement of Buddhists manufacture silk and cotton cloth of excellent quality and artistic patterns. In the States of Rairākhhol and Athmalik a considerable number of Lohārs (smiths) earn a livelihood in smelting iron, which is of excellent quality and highly valued. In Baud, Daspallā, Dhenkānāl, Khandparā, Mayūrbhanj and Tāloher blacksmiths make, for local use, iron implements, such as axes, bill-hooks, crow-bars, shovels, spades, sickles and knives, some of which are very well turned out. In Dhenkānāl and Nayāgarh ivory work of good quality is still made by one or two families, and in Baud there are skilful silversmiths. In Bonai the Bhumiḡ fashions utensils from the soap stone found there, and similar vessels are manufactured in the Nilgiri State. MANUFACTURES.

In almost all the villages of the States are found the local cotton weavers, who are Pankās or Pāns, Chiks and Mehors. The cloth woven is very coarse; it is however very much more durable than the mill-made article. The weavers eke out a precarious existence from the proceeds of their toil. In certain parts the sands of the Brāhmani, Ib and Mahānadi are washed by a tribe known as Jhorās, and an account of this industry will be found in the article on the Bonai State. It will thus be seen that there are virtually no manufactures in the States and such

industries as these are petty. The villages are self-contained with their own blacksmith, potter, carpenter, etc.; their wants are few and the few articles of luxury are obtained by barter.

Mines and deposits.

There are no mines in the States: at Bisra in the Gangpur State there are extensive limestone quarries worked by a European firm and the manufactured lime has obtained a ready sale and high reputation in the Calcutta market: dolomite deposits in the same State on the banks of the Brāhmani have also been worked. Manganese in fair quantity is found in the Gangpur State and in 1908 nearly 2,000 tons were raised: in the Himgir zamindari of the same State a coalfield of good quality exists and a company has been formed to work it. The enormous resources of iron ore in the Gurumasiāni hill in the State of Mayūrbhanj are well known and the ore is about to be exploited by the large Steel Works to be started by Tātā and Sons. The granite quarries in the Nilgiri State are now being exploited by a company which has built a tramway from Balasore to Nilgiri. As regards other minerals which exist in the States, but have so far not been worked, an account is given under the head of Geology.

TRADE.

Imports and exports.

Traders in the States are represented by itinerant dealers from the British districts; there are but very few local traders. Trade is carried on principally in rice, pulses, oil-seeds, etc., and timber and other forest produce in return for salt, dried fish, European cotton piece-goods, cotton twist and kerosene oil; tusser cocoons are also exported. There is a considerable export trade in hides and horns. Most of the export and the import trade is carried on with Cuttack and to a smaller extent also with Balasore, Puri and Sambalpur. Regular weekly or bi-weekly markets are held in all the States at convenient centres where the ordinary necessities of a rural population, such as salt, cloth, dried-fish, etc., are bartered for grain. There are, however, no central markets of great importance, but Kantilo in Khandpara, Anandpur in Keonjhar, Bhuban and Dhenkānāl in Dhenkānāl and Tarbhā in Sonpur are important marts. The system is for traders to push on into the hill tracts, inaccessible for cart traffic, early in the year: they settle down with their pack-bullocks or ponies and scour the country side, bringing in head-loads of grain by means of cooly transport: in due course these supplies are transferred to the pack-bullocks and ponies, which either carry them to the places where the carts are waiting for them, or transport them direct to their destination. Here, as elsewhere, the wandering race of Banjārās are found engaged in their traditional pursuit of transport carriers and sutlers.

Trade centres.

There are some fairs, the most noted of which are Kapilās in Fairs. Dhenkānāl, Deogāon in Keonjhar and Dhabaleswar in Athgarh. Large numbers of pilgrims including visitors from outside congregate on the Sivarātri day (February-March) at Kapilās and Deogāon and at Dhabaleswar on the Kārttik Pūrnimā day (October-November), but these places do not attract much trade, being resorted to chiefly for purposes of devotion and for the cure of diseases and infirmities.

Want of communications forms the chief obstacle to the Trans-
growth of trade. The larger rivers are open to country boats ^{port.} for about eight months in the year, during which they are also largely used along their lower reaches for floating down rafts of timber and bamboos. But the bulk of the trade is carried on from November to May in country carts, where there are fair-weather roads, and elsewhere on pack-bullocks which still form the chief means of carriage. Solid block-wheeled carts (*sagars*) are used for bringing down timbers and stones from the forests and for carrying other goods in places where nothing better than tracks are to be found.

CHAPTER IX.

MEANS OF COMMUNICATION.

GENERAL ONE of the greatest signs of advancement noticeable in the States
FEATURE. of Orissa during recent years has been the very marked improvement effected in communications. All the twenty-four States
ROADS. have good and, in some cases, excellent roads to their headquarters and there are many good surface feeder roads. The principal
 and most important roads are, the Cuttack-Angul-Sambalpur (171 miles), Cuttack-Sonpur-Sambalpur (205 miles), and Sambalpur-Patna-Kalāhandi (140 miles). The former lies to the north of the Mahanadi and runs through the States of Athgarh and Dhenkanal, the Angul district, the States of Athmallik and Rairākhol and the Sambalpur district: this road, except in the Dhenkanal and Rairākhol States, is maintained by Government and there are rest-houses at convenient distances of about 10 miles apart up to the border of the Rairākhol State: bungalows are now in course of erection in this State and the Sambalpur district. The Cuttack-Sonpur-Sambalpur road runs on the south side of the Mahanadi, following closely the bank of the river: it runs through Domparā and Bānki in the Cuttack district, the States of Khandparā, Daspallā, Baud and Sonpur and the Sambalpur district. It is maintained throughout its length as far as the Sonpur border by Government, except in the short length situated in the Pancharā zamindāri of the Sonpur State, which lies in the State of Baud near the river Tel: this section is maintained by the Sonpur State: the road throughout its length in the Sonpur State is maintained by the Chief: after leaving the Sonpur State the road runs through the Sambalpur district crossing the Mahanadi at Dhamā, about 15 miles below Sambalpur. The northern section of the road is not an easy one for traffic, as after entering the State of Baud many large streams and rivers have to be crossed: the worst of these are the Sāiki, Bāgh, and Mārini in Baud, the Tel and Ang in the Sonpur State. The road, except the portion in the Sonpur State and the portion between Dhamā and Sambalpur which are good gravelled sections, is a surface road, and running as it does in

close proximity to the river is in many parts poor owing to the sandy nature of the soil and to the fact that in many places, especially near Harbhangā in the Baud State, it is overtopped by high floods: there are bungalows at regular intervals all the way from Cuttack to Sonpur, and there is also a bungalow at Binkā in the Sonpur State and one at Dhamā. The crossing at Dhamā is an exceedingly difficult one, and accordingly a diversion is under construction from Dhamā along the north bank of the river to the Sonpur border,¹ whence the road will be carried on by the State and the crossing made at Binkā, an important village in the Sonpur State on the south bank of the river.

The Sambalpur-Patnā-Kalahandi road crosses the Mahānadi at Sambalpur, where, except in the rainy season, an excellent pontoon bridge is maintained by the Bengal-Nāgpur Railway and travels *via* Attābirā, Bargarh and Barpālī to the Sonpur border, a distance of about 48 miles: as far as Bargarh the road is a metalled one, and from there to the Sonpur border a good gravelled road has been constructed. The road runs for a distance of 8 miles through the Sonpur State and then crosses the Ang river, which forms the border between the States of Sonpur and Patnā, crosses the Suktel and runs on to Bolāngir, the headquarters of the Patnā State: the road as far as Bolāngir from the Sambalpur-Sonpur border is an excellent gravelled road and the smaller streams are bridged. The distance from Sambalpur to Bolāngir is 76 miles. From Bolāngir, a good surface road runs on to Bhawānipatnā, the headquarters of the Kalāhandi State, 64 miles from Bolāngir: the section of the road from Bolāngir to the Tel, a distance of 32 miles, and the boundary of the Patnā and Kalāhandi States is of heavy gradients running in a series of switchbacks and the surface is only moderate: from the border of the Kalāhandi State the country greatly improves, the gradients are comparatively easy and the surface is in fair order: the last five miles of the road before entering Bhawānipatnā is in excellent order and bridged throughout: the whole length of the road is possible for a motor. There are bungalows at Attābirā (17th mile), Bargarh (30th mile), Barpālī (40th mile) and Chārmundā (46th mile), all in the Sambalpur district: there are also bungalows at Dugripālī in the Sonpur State (53rd mile), at Salebhattā (57th mile), just across the Tel river, at Bolāngir (76th mile) and Deogāon (88th mile) in the Patnā State and in the State of Kalāhandi at Kasurparā (116th mile), Utkeiā (126th mile) and Bhawānipatnā (140th mile). This route is a very important one for trade and commerce.

Sambal-
pur-
Patnā-
Kalahandi
road.

Raipur-
Bhawāni-
patnā
road.

Another important road, but which, with the transfer of the five Sambalpur States from the Central Provinces to Orissa, has naturally become of somewhat less importance than before, is the Raipur-Bhawānipatnā road which enters the Patnā State on the border of the Khariār zamindari in the Raipur district, and after running for about 12 miles through the south-western extremity of the Patnā State through Sindhekelā, it crosses the boundary of the Patnā and Kālāhandi States six miles further meeting the Tel river: from here the road runs due south for a distance of 7 miles to Mādingpadar, then turns south-east across the Kālāhandi State entering the Ganjām district of the Madras Presidency at Sikarkupā: the road is a gravelled one and maintained in excellent order: throughout its course in the Patnā and Kālāhandi States there is only one bungalow and that at Mādingpadar in the Kālāhandi State 12 miles from Bhawānipatnā with which it is connected by a good road. A considerable amount of traffic goes by this road to Ganjām and there is a traffic-registering station at Sikarkupā. The road passes Bhawānipatnā, the headquarters of the Kālāhandi State, at a distance of 9 miles to the north.

Bāripadā-
Karanjiā
road.

These are the principal roads for traffic in the States. The States of Mayūrbhanj, Kālāhandi, Bāmra and Sonpur are well provided with good roads: and there are also good village roads in the States of Patnā, Dhenkānāl, Tācher and Nayāgarh: internal communications are defective in the States of Baud, Bonai, Daspallā, Gāngpur, Khandparā and Tigiriā; but there are good roads in all cases to the headquarters of the States with bungalows at the headquarters. In the Mayūrbhanj State communications are excellent and the roads are well provided with travellers' bungalows: there is a good road from the headquarters, Bāripadā, to Karanjiā and thence to the Keonjhar border: in this State there are 149.50 miles of metalled road and 350 miles of surface road. In Kālāhandi there are 53½ miles of gravelled road and 116½ miles of good surface road: in this State a fine piece of engineering has recently been completed in the Ampānighāt road, which now gives through communication between the fertile plains of the State and the zamindari of Jaypur in Madras: the road is available for cart traffic and winds its way across the lofty barrier of the hills on the southern border, reaching at its summit a height of nearly 2,000 feet. In Bāmra, there is a good gravelled road from the railway station, Bāmra Road, on the Bengal-Nāgpur Railway to Deogarh, the headquarters of the State, a distance of 58 miles, with bungalows at Bāmra, Kuchindā and Sirid. In the State of Keonjhar a first class

Bāmra-
Deogarh
road.